

INDEX

ALLOY LISTING 23
ALLOY SPECIFICATIONS 24
ALUMINUM BRASS 11
ALUMINUM BRONZE 16, 17, 18

BERYLLIUM-COBALT 4
BISMUTH BRASS 11
BISMUTH BRONZE 18
BRASS 9, 10, 11, 13, 14, 15
BRONZE 15, 16, 17, 18

CARTRIDGE BRASS 11, 12
CHROMIUM COPPER 4
CONVERTER COPPER 5
COPPER 2, 3, 4
COPPER ALLOYS 22
COPPER IN VARIOUS FORMS 2
COPPER WIRE 2

ENVIROBRASS 7

FEDERALLOY 7
FREE CUTTING BRASS 12

GILDING METAL 5
GLOBULE ARC 2
GUN METAL 5

HIGH TENSILE BRASS 15

LEADED BRASS 12, 13
LEADED BRONZE 20, 21
LEADED TIN BRONZE 20, 21

MANGANESE ALLOY 5
MANGANESE BRASS 13
MANGANESE BRONZE 18

NAVAL BRASS 13
NICKEL ALLOY 6, 7
NICKEL BRASS 14
NICKEL BRONZE 18

PHOSPHOR BRASS 14
PHOSPHOR BRONZE 19
PHOSPHORUS DEOXIDIZED 2

ROD 2, 4, 5, 13, 21

SEBILOY 7
SILICON BRASS 14
SILICON BRONZE 19
SILVER ALLOY 8

TIN BRONZE 20, 21
TIN COPPER 8

WIRE 2

XRF 22

CRM PURITY COPPER DISC AND ROD SETS

listed in mg/kg IMN in SETS only, as grouped IMN CP: 40mm Ø x 23mm IMN CS: 40mm Ø x 25mm or 6mm Ø x 100mm VS: SET or individual ~40mm Ø x ~25mm

| Number | Ag | As | Bi | Cd | Co | Cr | Fe | Mn | Ni | P | Pb | S | Sb | Se | Si | Sn | Te | Zn | Other |
|----------|------|------|-------|-------|------|-------|------|------|------|------|------|------|------|------|--------|------|------|------|----------------|
| IMN CS1 | 53.1 | 2.0 | 1.1 | 1.0 | 0.6 | (0.3) | 18.4 | 29.0 | 46.8 | 57.7 | 60.5 | 65.9 | 3.0 | 61.5 | (3.0) | 52.9 | 2.1 | 24.1 | B:(1.1) |
| IMN CS2 | 45.6 | 7.4 | 6.2 | 7.4 | 3.6 | 35.8 | 30.5 | 35.3 | 26.7 | 33.8 | 38.6 | 44.9 | 7.5 | 39.0 | (9.4) | 33.7 | 5.6 | 8.9 | B:(2.8) |
| IMN CS3 | 38.9 | 13.8 | 12.2 | 13.4 | 7.4 | 10.9 | 28.3 | 12.6 | 11.1 | 12.1 | 13.3 | 18.8 | 13.0 | 15.4 | (22.2) | 13.3 | 10.6 | 31.3 | B:(4.2) |
| IMN CS4 | 237 | 42.2 | 39.6 | 35.5 | 24.3 | 7.0 | 82.0 | 8.3 | 7.2 | 6.3 | 7.6 | 41.3 | 36.8 | 6.7 | (46.5) | 6.2 | 32.9 | 44.0 | B:(21.7) |
| IMN CS5 | 320 | 70.5 | 59.7 | 66.1 | 37.5 | 1.0 | 90.9 | 4.3 | 4.4 | 2.0 | 5.0 | 12.0 | 63.9 | 0.9 | (54.8) | 0.9 | 49.8 | 101 | B:(35.2) |
| IMN CP1 | 12 | 0.4 | 1.0 | 0.6 | 0.2 | 0.3 | 10 | 1.3 | 3.4 | 2.0 | 1.7 | 6.3 | 11 | <1 | . | 5.6 | 3.0 | 1.9 | |
| IMN CP2 | 36 | 140 | . | 72 | 39 | 0.5 | 8.1 | 5.9 | 20 | 11 | 120 | 35 | 160 | 77 | (4) | 4.8 | 12 | 92 | |
| IMN CP3 | 60 | 63 | 47 | 35 | 20 | 45 | 15 | 30 | 13 | 44 | 81 | 60 | 120 | 43 | (8) | 17 | 46 | 33 | |
| IMN CP4 | 110 | 14 | 13 | 11 | 4.2 | 86 | 44 | 55 | 3.4 | 130 | 28 | 94 | 48 | 10 | (3) | 40 | 75 | 17 | |
| IMN CP5 | 31 | 65 | 9.4 | 2.5 | 34 | 48 | 77 | 49 | 39 | 110 | 13 | 21 | 27 | 35 | (82) | 2.1 | 7.8 | 38 | |
| IMN CP6 | 20 | 0.85 | . | . | <1 | 0.3 | 6.4 | 0.6 | 2.7 | 1.7 | 2.7 | 7.5 | 0.4 | <1 | . | 0.7 | . | 1.4 | |
| VS MO3-1 | 22.2 | 0.55 | 0.089 | 0.063 | 0.09 | 0.25 | 3.7 | 9.9 | 0.38 | 2.0 | 0.51 | 5.3 | 2.1 | 0.39 | 11.5 | 0.52 | 0.33 | 1.93 | |
| VS MO3-2 | 11.0 | 2.2 | 1.62 | 9.1 | 5.3 | 2.9 | 5.3 | 5.5 | 15.0 | 7.3 | 2.9 | 6.8 | 7.8 | 0.97 | 13.0 | 1.39 | 1.13 | 1.07 | Al:1.4 Mg:0.76 |
| VS MO3-4 | 0.41 | 0.14 | 0.73 | 0.93 | 1.37 | 0.38 | 40.2 | 7.7 | 0.80 | 34.6 | 9.4 | . | 0.45 | 0.42 | . | 0.64 | . | 9.8 | Al:1.9 Mg:1.01 |
| VS MO3-5 | 3.3 | 15.8 | 15.9 | 0.22 | 17.8 | 9.2 | 18.4 | 15.1 | 29.3 | 14.3 | 24.1 | 12.0 | 25.8 | 12.7 | 8.4 | 13.3 | 12.6 | 19.4 | Al:8.4 Mg:6.5 |
| VS MO3-6 | 47.2 | 53.2 | 46 | 28 | 29.5 | 23.5 | 56.5 | 43.4 | 102 | 16.9 | 69 | 27.5 | 52.5 | 31.9 | 14.1 | 43.2 | 35 | 55.6 | |
| VS MO3-7 | 10.8 | 0.96 | 0.49 | 0.59 | . | 0.11 | 10.9 | 3.08 | 0.36 | 0.95 | 0.30 | 3.9 | 0.90 | . | . | 0.29 | 0.47 | 0.95 | Al:(0.6) |
| VS MO3-9 | 28.2 | 1.45 | 1.15 | 0.84 | 2.3 | 0.94 | 12.1 | 0.56 | 3.15 | 0.41 | 4.0 | 11.7 | 3.4 | 1.00 | 0.77 | 1.43 | 1.31 | 0.86 | |
| VS MO3-k | 10.5 | 1.51 | 1.11 | 0.81 | 0.71 | 0.60 | 3.6 | 3.09 | 2.63 | 0.84 | 1.54 | 6.1 | 2.8 | 0.78 | 0.91 | 1.09 | 0.97 | 1.9 | Mg:0.82 |

CRM ELECTROLYTIC COPPER ROD SET

available in SET/6 ONLY listed in mg/kg 3 or 6 mm Ø x 100 mm

| Number | Ag | As | Bi | Fe | Ni | Pb | Sb | Sn | Zn | Cu |
|---------|------|------|---------|------|-------|------|------|--------|------|-----|
| IMN CP1 | 45.0 | 6.7 | 12.5 | 42.0 | 29.0 | 33.0 | 24.0 | 21.0 | 57.0 | Rem |
| IMN CP2 | 9.0 | 1.1 | . | 2.8 | 0.7 | 0.6 | 1.4 | . | 2.2 | Rem |
| IMN CP3 | 3.2 | 1.8 | . | 20.0 | 6.4 | 8.9 | 2.2 | 3.2 | 3.4 | Rem |
| IMN CP4 | 18.0 | 43.0 | 1.2 | 3.7 | 7.8 | 1.1 | 11.0 | 1.0 | 31.0 | Rem |
| IMN CP5 | 12.0 | 2.3 | 0.25 | 98.0 | 3.0 | 3.2 | 1.9 | 1.3 | 4.7 | Rem |
| IMN CP6 | 12.0 | 0.32 | (0.012) | 1.0 | (0.4) | 1.8 | 0.2 | (0.06) | . | Rem |

CRM COPPER

analysis listed in mg/kg 40 mm Ø x 30 mm

| Number | Fe | P | Sn |
|---------|------|-----|--------|
| BAM 391 | 0.90 | 3.3 | (<0.1) |
| BAM 390 | 0.79 | 1.3 | (<0.1) |
| BAM 392 | 0.80 | 7.0 | (<0.1) |

COPPER WIRE FOR GLOBULE ARC WORK

analysis listed in mg/kg wire form, intended for globule arc work ClC: CRM all others: RM last of stock, 5 rods 3 mm Ø x 80 mm

| Number | Ag | As | Bi | Cd | Co | Cr | Fe | Mn | Ni | Pb | Sb | Se | Sn | Te | Zn | O | P | S | Si |
|---------|----|------|------|-------|------|--------|-----|---------|------|--------|------|--------|--------|--------|------|-----|-------|-----|------|
| 38X ClB | 13 | 0.8 | 0.1 | <0.1 | 0.03 | 0.06 | 1.2 | 1.2 | 1.0 | 0.8 | 0.6 | . | <0.3 | 0.3 | 0.45 | . | . | . | . |
| 38X ClC | 11 | 0.19 | 0.10 | <0.01 | . | <0.005 | 1.7 | (0.005) | 0.27 | (0.05) | 0.10 | (0.25) | (0.01) | (0.21) | <0.1 | 266 | <0.05 | 2.0 | <0.1 |

CHILL CAST PHOSPHORUS DEOXIDIZED COPPER

= Class, where 1 = CRM and 2 = RM, typical analysis

| # | Number | P | Cu | Ag | Fe | Al | As | Co | Mn | Ni | Pb | Sb | Sn | Zn |
|---|------------|--------|-------|--------|--------|-----------|--------|---------|---------|---------|---------|---------|--------|---------|
| 2 | CURM 09.01 | 0.151 | 99.82 | 0.011 | 0.0019 | <0.0005 | <0.001 | <0.0003 | <0.0003 | <0.0003 | <0.0005 | <0.0005 | <0.001 | 0.0008 |
| 2 | CURM 09.02 | 0.078 | 99.90 | 0.0055 | 0.0042 | <0.0005 | <0.001 | <0.0005 | <0.0005 | <0.0005 | <0.001 | <0.0005 | <0.001 | <0.001 |
| 1 | SRM C1253a | 0.0561 | 99.46 | 0.0494 | 0.0290 | 0.0176 | 0.0436 | 0.0454 | 0.0357 | 0.0491 | 0.0243 | 0.0139 | 0.0499 | 0.0329 |
| 2 | CURM 09.03 | 0.056 | 99.82 | 0.012 | 0.0033 | <0.0003 | <0.001 | <0.0003 | <0.0003 | <0.0003 | <0.0005 | <0.0005 | <0.001 | <0.001 |
| 1 | SRM C1251a | 0.0420 | 99.89 | 0.0080 | 0.0285 | (<0.0020) | 0.0016 | 0.00132 | 0.00046 | 0.00236 | 0.00235 | 0.00149 | 0.0016 | 0.0024 |
| 1 | SRM C1252a | 0.0125 | 99.87 | 0.0158 | 0.0072 | (<0.0020) | 0.0118 | 0.0087 | 0.0043 | 0.0128 | 0.0060 | 0.0042 | 0.0120 | 0.00694 |

| Number | Au | Bi | Cd | Cr | Mg | S | Se | Si | Te | Units |
|------------|---------|----------|-----------|----------|-----------|----------|--------|-----------|---------|-----------------------|
| CURM 09.01 | . | <0.0003 | . | . | . | . | . | <0.001 | . | 50 mm Ø x 10-12 mm |
| CURM 09.02 | . | <0.0005 | . | . | . | . | . | <0.002 | . | 50 mm Ø x 10-12 mm |
| SRM C1253a | 0.0072 | (0.0056) | 0.0070 | 0.0260 | (0.0150) | (0.0050) | 0.0136 | (0.0580) | 0.0168 | 32 mm x 32 mm x 19 mm |
| CURM 09.03 | . | <0.0003 | . | . | . | . | . | <0.001 | . | 50 mm Ø x 10-12 mm |
| SRM C1251a | 0.00155 | 0.00037 | (<0.0003) | (0.0003) | (<0.0020) | (0.0035) | 0.0011 | (<0.0050) | 0.0016 | 32 mm x 32 mm x 19 mm |
| SRM C1252a | 0.00339 | (0.0019) | 0.00169 | 0.0019 | (<0.0020) | (0.0070) | 0.0056 | (<0.0100) | 0.00546 | 32 mm x 32 mm x 19 mm |

CRM COPPER IN VARIOUS FORMS

analysis listed in mg/g ERM-EB074A: disc 39 mm Ø x 30 mm ERM-EB074B: Rod 8 mm Ø x 100 mm ERM-EB074C: Chips 50 g five other trace elements

| Ag | As | Au | Be | Bi | Cd | Co | Cr | Fe | In | Mg | Mn | Ni | P | Pb | S | Sb | Se | Sn | Te | Ti | Zn | Zr |
|------|------|------|------|------|------|------|------|-----|------|------|------|------|------|-----|-------|------|------|-------|------|------|-----|-------|
| 1.03 | 1.23 | 0.52 | 0.31 | 0.51 | 0.40 | 0.83 | 0.37 | 5.8 | 0.49 | 2.03 | 0.93 | 0.61 | 1.53 | 2.7 | (3.3) | 0.57 | 0.55 | (1.5) | 0.50 | 0.97 | 2.2 | (8.8) |

COPPER

= class, where 1 = CRM and 2 = RM 39X: ~38-42 mm Ø x 15-20 mm BS: 38 mm Ø x ~7 or 19+ mm IARM: 31 mm Ø x 2 or 18 mm BLM, BCR, ERM: 38-40 mm Ø x 27-30 mm CTIF: 40 mm Ø x 18 mm IMN, VS: 40 mm Ø x 23-27 mm

Table with columns: #, Number, Al, As, Bi, Cd, Co, Cr, Fe, Mg, Mn, Ni, P, Pb, S. Contains multiple rows of chemical analysis data for various copper alloy grades.

Header row for the second table: #, Number, Al, As, Bi, Cd, Co, Cr, Fe, Mg, Mn, Ni, P, Pb, S.

continued analysis listed in mass % except * which is mg/kg

Table with columns: Number, Sb, Se, Si, Sn, Te, Ti, Zn, Zr, Ag*, Au*, C*, Be*, Cu, In*, O*, Other. Contains detailed chemical analysis data including trace elements.

Final header row for the second table: Number, Sb, Se, Si, Sn, Te, Ti, Zn, Zr, Ag*, Au*, C*, Be*, Cu, In*, O*, Other.

CRM COPPER RODS analysis listed in mg/kg IMN: 6 mm Ø x 100 mm SRM: ~6.5 mm Ø x 103 mm

| Number | Ag | As | Bi | Cd | Co | Cr | Fe | Mn | Ni | O | P | Pb | S | Sb | Se | Sn | Te | Zn | Cu |
|----------|-------|------|------|--------|-------|------|-----|--------|------|-----|-------|-------|-----|-------|------|--------|-------|------|-------|
| SRM 494 | 50 | 2.6 | 0.35 | . | 0.5 | 2.0 | . | 3.7 | 11.7 | . | . | 26.5 | 15 | 4.5 | 2.00 | 70 | 0.58 | 400 | 99.91 |
| IMN CS7R | 13.7 | 0.9 | <0.5 | (0.02) | 0.09 | 19.7 | 4.9 | 2.2 | 4.4 | . | (2.4) | (0.9) | 7.0 | 1.0 | <1.0 | 0.5 | <0.05 | 1.2 | . |
| SRM 495 | 12.2 | 1.6 | 0.50 | . | . | 6.0 | . | 5.3 | 5.4 | . | . | 3.2 | 13 | 8.0 | 0.63 | 1.5 | 0.32 | 12 | 99.94 |
| SRM 457 | 8.086 | (<2) | 0.22 | (<1) | 0.227 | (<2) | 2.4 | (<0.1) | 0.67 | 367 | . | 0.512 | 4 | 0.214 | 4.05 | (<0.1) | 0.296 | (<3) | 99.97 |

SRM 457 also contains Au:(<0.05), Cd Si and Ti:(<1)

IMN CS7R also contains B:<0.5 and Si:<1.0

BERYLLIUM-COBALT ALLOY

= class, where 1 = CRM and 2 = RM

F = Form, where w = wrought and c = cast

36X: 38-41 mm Ø x 15-17 mm

CTIF: 60 mm Ø x 5 mm

BS: 38 mm Ø x ~7 or 19+ mm

IARM: 31 mm Ø x 2 or 18 mm

| # F | Number | Be | Co | Cu | Al | Cr | Fe | Mn | Ni | Pb | Si | Sn | Zn | mass % except * = ppm |
|-----|-----------------|-------|---------|--------|--------|--------|--------|---------|--------|---------|--------|----------|---------|---|
| 2 c | CTIF 4584 | 2.53 | 0.04 | 97.05 | 0.033 | . | 0.120 | (0.002) | 0.015 | (0.002) | 0.166 | 0.022 | 0.022 | |
| 2 c | CTIF 4872 | 1.93 | 0.400 | 97.00 | 0.059 | (0.04) | 0.107 | 0.008 | 0.103 | 0.019 | 0.16 | 0.044 | 0.119 | |
| 1 w | 36X CBC4E | 1.869 | 0.215 | 97.47 | 0.0258 | . | 0.0274 | . | 0.0080 | 0.329 | 0.048 | 0.002 | 0.003 | Mg: 0.0035 P: 0.0027 |
| 2 w | BS 172 Be-1 | 1.89 | 0.206 | 97.68 | (0.02) | 0.0032 | 0.052 | 0.0010 | 0.039 | (0.002) | 0.055 | 0.033 | 0.0070 | P: 0.003 |
| 1 w | 36X CBC3D | 1.840 | 0.209 | 97.77 | 0.019 | . | 0.046 | . | 0.007 | 0.0025 | 0.039 | 0.0021 | 0.004 | Mg: 0.0040 |
| 2 c | CTIF 4766 | 1.58 | 0.64 | 96.83 | 0.027 | (0.2) | 0.165 | 0.007 | 0.203 | 0.053 | 0.11 | 0.100 | 0.070 | |
| 2 c | CTIF CuBeCo6 | 1.54 | (1.9) | 93.09 | 0.135 | 0.0576 | 0.109 | 0.0173 | (1.4) | 0.0397 | 0.26 | 0.0135 | 0.0330 | Ag: 1.37 |
| 2 c | CTIF 4583 | 0.84 | (0.002) | 96.35 | 0.029 | . | (0.15) | 0.064 | 2.02 | 0.084 | 0.08 | 0.25 | 0.094 | |
| 1 w | BS 17500 | 0.43 | 2.31 | (97.1) | 0.0210 | 0.0015 | 0.0262 | 0.081 | 0.095 | 0.0005 | 0.0641 | (0.0002) | 0.0065 | Ca: 54* C: 20* P: 31* Mg: 76* Sb: 1* 17025 Ag: 0.0011 Mg: 0.0009 |
| 1 w | 36X CBC5B | 0.404 | 0.0084 | 97.61 | 0.0104 | . | 0.0108 | . | 1.905 | 0.0015 | 0.004 | 0.0013 | 0.0010 | |
| 2 c | CTIF 4873 | 0.17 | 0.98 | 98.40 | 0.094 | 0.105 | 0.078 | (0.002) | 0.049 | (0.003) | 0.088 | (0.007) | (0.003) | |

CRM CHROMIUM COPPER

| Number | Cr | Ag | Al | Fe | Mn | Ni | Pb | Si | Sn | Zn | Zr | Cu |
|------------------|-------|--------|--------|--------|--------|--------|--------|-------|--------|----------|-------|--------|
| IARM 158C | 1.04 | (0.01) | 0.002 | 0.090 | 0.019 | 0.32 | 0.01 | 0.02 | 0.01 | 0.014 | . | 98.5 |
| IARM 158B | 0.85 | (0.01) | 0.002 | 0.090 | 0.019 | 0.32 | 0.01 | 0.02 | 0.01 | 0.014 | . | 98.5 |
| BS 18150A | 0.79 | . | 0.0023 | 0.007 | 0.0010 | 0.0019 | 0.0011 | 0.027 | 0.0144 | 0.0006 | 0.203 | [98.9] |
| BS 18150 | 0.74 | . | 0.0009 | 0.0047 | 0.0010 | 0.0010 | 0.0005 | 0.019 | 0.0097 | 0.0006 | 0.113 | [99.1] |
| 36X CCR1E | 0.652 | 0.0042 | 0.0013 | 0.0170 | . | 0.0111 | 0.0008 | . | 0.0018 | (0.0011) | 0.079 | 99.24 |
| 36X 274B * | 0.33 | 0.002 | 0.001 | 0.02 | 0.001 | 2.55 | 0.001 | 0.67 | 0.001 | 0.001 | . | Rem |

* Provisional Analysis

| Number | As | C | Co | Mg | N | O | P | S | Sb | Units |
|------------------|----------|--------|----------|----------|---------|----------|--------|--------|----------|-------------------------------------|
| IARM 158C | (0.001) | 0.002 | 0.002 | . | <0.0005 | 0.002 | 0.005 | 0.003 | 0.002 | 31 mm Ø x 2 or 18 mm |
| IARM 158B | (0.001) | 0.002 | 0.002 | . | <0.0005 | 0.002 | 0.005 | 0.003 | 0.002 | 31 mm Ø x 2 or 18 mm |
| BS 18150A | (0.0003) | 0.0010 | (0.0003) | . | . | (0.0008) | 0.0045 | 0.0007 | (0.0002) | 38 mm Ø x ~7 or 19+ mm 17025 |
| BS 18150 | (0.0004) | 0.0009 | (0.0002) | . | . | (0.0006) | 0.0037 | 0.0007 | (0.0001) | 38 mm Ø x ~7 or 19+ mm 17025 |
| 36X CCR1E | 0.0007 | . | . | (0.0003) | . | . | 0.0223 | 0.0016 | . | ~50 mm Ø x ~17 mm |
| 36X 274B * | . | . | 0.005 | . | . | . | . | . | . | ~40 mm Ø x ~15 mm |

Need a larger size?
Most BS items are
available in any height.

CRM CONVERTER COPPER DISC AND ROD SETS

analysis listed in mass %

AVAILABLE IN SETS ONLY, AS GROUPED

IMN CT: 40 mm Ø x 30 mm

IMN CG, CH: 10 mm Ø x 100 mm

| Number | Ag | As | B | Bi | Co | Cu | Fe | Ni | P | Pb | S | Sb | Se | Sn | Te | Zn |
|---------|--------|--------|---------|--------|--------|-----|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|
| IMN CT1 | 0.057 | 0.32 | 0.024 | 0.018 | 0.051 | . | 0.17 | 0.48 | 0.082 | 0.013 | 0.054 | 0.33 | 0.062 | 0.24 | 0.053 | 0.28 |
| IMN CT2 | 0.042 | 0.22 | 0.033 | 0.013 | 0.033 | . | 0.10 | 0.29 | 0.059 | 0.086 | 0.036 | 0.24 | 0.041 | 0.14 | 0.036 | 0.19 |
| IMN CT3 | 0.026 | 0.11 | 0.00093 | 0.0067 | 0.013 | . | 0.083 | 0.12 | 0.038 | 0.31 | 0.012 | 0.11 | 0.018 | 0.070 | 0.022 | 0.11 |
| IMN CT4 | 0.016 | 0.050 | 0.0042 | 0.0043 | 0.011 | . | 0.045 | 0.049 | 0.020 | 0.88 | 0.0060 | 0.049 | 0.011 | 0.025 | 0.011 | 0.045 |
| IMN CT5 | 0.0062 | 0.0056 | (0.011) | 0.0011 | 0.0061 | . | 0.016 | 0.0095 | 0.0059 | (1.48) | 0.0024 | 0.010 | 0.0069 | 0.0070 | 0.0064 | 0.0098 |
| IMN CH6 | 0.18 | . | . | . | 0.18 | Rem | 0.028 | 0.40 | . | 0.50 | . | . | . | . | . | 0.19 |
| IMN CH7 | 0.40 | . | . | . | 0.11 | Rem | 0.11 | 0.18 | . | 1.01 | . | . | . | . | . | 0.047 |
| IMN CH8 | 0.039 | . | . | . | 0.020 | Rem | 0.0012 | 0.036 | . | 1.49 | . | . | . | . | . | 0.077 |
| IMN CH9 | 0.010 | . | . | . | 0.0060 | Rem | 0.0060 | 0.010 | . | 1.97 | . | . | . | . | . | 0.015 |
| IMN CG1 | 0.011 | . | . | . | 0.17 | Rem | 0.013 | 0.036 | . | 0.60 | . | . | . | . | . | 0.016 |
| IMN CG2 | 0.25 | . | . | . | 0.098 | Rem | 0.015 | 0.011 | . | 0.30 | . | . | . | . | . | 0.026 |
| IMN CG3 | 0.040 | . | . | . | 0.045 | Rem | 0.030 | 0.39 | . | 0.22 | . | . | . | . | . | 0.14 |
| IMN CG4 | 0.10 | . | . | . | 0.057 | Rem | 0.25 | 0.23 | . | 0.11 | . | . | . | . | . | 0.12 |
| IMN CG5 | 0.41 | . | . | . | 0.0079 | Rem | 0.069 | 0.10 | . | 0.053 | . | . | . | . | . | 0.18 |

CRM GILDING METAL

| Number | Cu | Fe | Ni | P | Pb | Sn | Zn | method | Units |
|-----------|------|------|-------|-------|-------|------|-----|---------|-----------------------|
| SRM 1114 | 96.4 | 0.01 | 0.021 | 0.009 | 0.012 | 0.02 | 3.4 | wrought | 31 mm Ø x 19 mm |
| SRM C1114 | 96.4 | 0.01 | 0.021 | 0.009 | 0.012 | 0.02 | 3.4 | cast | 31 mm x 31 mm x 19 mm |
| SRM 1113 | 95.0 | 0.04 | 0.057 | 0.008 | 0.026 | 0.06 | 4.8 | wrought | 31 mm Ø x 19 mm |
| SRM 1112 | 93.3 | 0.07 | 0.10 | 0.009 | 0.057 | 0.12 | 6.3 | wrought | 31 mm Ø x 19 mm |

CRM GILDING METAL SET

available in SET/5 only

wrought 40 mm Ø x 25 mm

| Number | Ag | Al | As | Be | Bi | Cd | Cu | Fe | Mn | Ni | P | Pb | S | Sb | Si | Sn | Te | Zn |
|---------|--------|--------|--------|----------|---------|--------|-------|--------|--------|--------|--------|--------|--------|----------|--------|--------|--------|-------|
| IMN MI1 | 0.0038 | 0.0400 | 0.0720 | 0.000091 | 0.00063 | 0.0230 | 95.69 | 0.2500 | 0.0030 | 0.0059 | 0.0280 | 0.0060 | 0.0430 | 0.000044 | 0.0032 | 0.1500 | 0.0065 | 3.57 |
| IMN MI2 | 0.0090 | 0.0550 | 0.0540 | 0.00085 | 0.00056 | 0.0160 | 93.35 | 0.1600 | 0.0081 | 0.0180 | 0.0220 | 0.0160 | 0.0490 | 0.0019 | 0.0120 | 0.1000 | 0.0110 | 6.19 |
| IMN MI3 | 0.0200 | 0.0150 | 0.0340 | 0.0019 | 0.0026 | 0.0110 | 91.46 | 0.0860 | 0.0350 | 0.0730 | 0.0150 | 0.0420 | 0.0230 | . | 0.0310 | 0.0670 | 0.0031 | 8.01 |
| IMN MI4 | 0.0260 | 0.0079 | 0.0031 | 0.0065 | 0.0026 | 0.0054 | 88.35 | 0.0410 | 0.0500 | 0.1400 | 0.0073 | 0.0700 | 0.0120 | 0.0006 | 0.0600 | 0.0130 | 0.0021 | 11.13 |
| IMN MI5 | 0.0330 | 0.0021 | 0.0150 | 0.0072 | 0.0043 | 0.0012 | 94.71 | 0.0150 | 0.0690 | 0.2500 | 0.0026 | 0.0960 | 0.0019 | 0.0096 | 0.0820 | 0.0040 | . | 4.44 |

GUN METAL

C, CURM: 50 mm Ø x 10 - 12 mm

33X GM29: wrought 33 mm Ø x 19 mm

other 33X: chill cast ~40 mm Ø x ~15 mm

| Number | Zn | Sn | Pb | Ni | Fe | Cu | Ag | Al | As | Bi | Co | Cr | Mn | P | S | Sb | Si |
|------------|------------------|------|-------|--------|--------|-------|--------|----------|--------|--------|--------|-----------|-----------|--------|--------|--------|-----------|
| CRM | | | | | | | | | | | | | | | | | |
| 33X GM4AC | 5.78 | 2.57 | 5.21 | 1.510 | 0.024 | 84.79 | 0.0108 | (0.0010) | 0.0205 | 0.0132 | 0.0195 | . | 0.0007 | 0.0022 | 0.107 | 0.0101 | 0.0011 |
| 33X GM8G | 5.71 | 4.03 | 6.21 | 0.1491 | 0.033 | 83.64 | 0.1018 | . | 0.0114 | 0.062 | 0.0222 | . | . | 0.0062 | 0.0083 | 0.0237 | . |
| 33X GM5N | 4.16 | 5.18 | 4.80 | 0.802 | 0.194 | 84.56 | 0.049 | 0.070 | 0.0408 | 0.0510 | 0.0207 | Cd:0.0111 | Te:0.0043 | 0.0098 | 0.063 | 0.0654 | 0.070 |
| 33X GM20A | 3.87 | 4.07 | 0.106 | 0.999 | 0.570 | 87.58 | 0.141 | (0.001) | 0.196 | 0.031 | 0.0382 | 0.015 | 0.219 | 0.063 | . | 2.004 | Cd:0.0229 |
| 33X GM7J | 2.72 | 9.61 | 1.119 | 0.511 | 0.050 | 85.40 | 0.050 | 0.0110 | 0.103 | 0.119 | 0.095 | . | 0.0088 | 0.082 | 0.064 | 0.1092 | (0.0033) |
| 33X GM6K | 1.409 | 6.58 | 3.94 | 0.890 | 0.0256 | 86.51 | 0.0148 | 0.0012 | 0.158 | 0.0359 | 0.0100 | . | 0.0022 | 0.0041 | 0.090 | 0.259 | (0.0009) |
| RM | | | | | | | | | | | | | | | | | |
| CURM 71.32 | typical analysis | | | 0.70 | 0.35 | 80.48 | 0.34 | 0.12 | 0.25 | 0.051 | . | 0.05 | 0.046 | 0.016 | 0.08 | 0.26 | 0.022 |
| CURM 71.31 | 4.27 | 4.38 | 6.44 | 2.07 | 0.098 | 82.30 | 0.052 | 0.045 | 0.11 | 0.027 | . | <0.01 | 0.010 | 0.060 | 0.11 | 0.006 | |
| 33X GM29A | 4.23 | 6.12 | 0.050 | 0.0289 | 0.0102 | 89.36 | 0.0026 | (0.0004) | 0.0017 | 0.0019 | . | (0.0004) | (0.0005) | 0.138 | 0.0024 | 0.0015 | 0.0027 |
| 33X GM24A | 3.67 | 3.85 | 3.35 | 0.0087 | 0.0083 | 88.88 | 0.0046 | (0.0001) | 0.0010 | 0.0009 | . | (0.0013) | <0.0005 | 0.190 | 0.003 | 0.0012 | 0.0028 |
| CURM 71.33 | 3.60 | 4.96 | 6.84 | 0.938 | 0.018 | 83.60 | <0.002 | <0.001 | <0.001 | <0.002 | . | <0.0005 | <0.0005 | <0.001 | <0.001 | <0.002 | <0.005 |
| C71.34 | 1.55 | 8.20 | 2.47 | <0.01 | 0.29 | rem | 0.025 | 0.007 | 0.18 | 0.029 | . | 0.03 | 0.05 | 0.020 | 0.16 | 0.071 | 0.04 |

CRM MANGANESE ALLOY SET

AVAILABLE IN SET/6 ONLY

40 mm Ø x 13 mm

| Number | Ag | As | Fe | Mn | Ni | P | Pb | Sb | Si | Sn | Zn |
|---------|--------|--------|-------|------|-------|--------|--------|--------|--------|--------|-------|
| IMN CK1 | 0.012 | 0.013 | 0.029 | 1.06 | 0.44 | 0.0011 | 0.0021 | 0.0049 | 0.049 | 0.13 | 0.24 |
| IMN CK2 | 0.0094 | 0.010 | 0.11 | 1.51 | 0.38 | 0.0022 | 0.0062 | 0.0015 | 0.091 | . | 0.14 |
| IMN CK3 | 0.0066 | 0.0095 | 0.17 | 1.78 | 0.27 | 0.0043 | 0.0098 | 0.0026 | 0.033 | 0.075 | 0.095 |
| IMN CK4 | 0.0041 | 0.0055 | 0.26 | 1.91 | 0.13 | 0.0056 | 0.017 | 0.0041 | 0.0025 | 0.042 | 0.065 |
| IMN CK5 | . | 0.0015 | 0.29 | 2.30 | 0.011 | . | . | 0.0051 | 0.011 | 0.0048 | 0.033 |
| IMN CK6 | 0.0012 | 0.0039 | 0.40 | 2.64 | 0.073 | 0.013 | . | 0.0052 | 0.21 | 0.025 | 0.034 |

NICKEL ALLOY

Main table listing alloy compositions for various materials (e.g., 36X CN6J, IARM 85C, 36X 71500A) with columns for elements Ni, Ag, Al, Bi, Co, Cr, Cu, Fe, Mn, Nb, P, Pb, S, Si, Sn, Zn.

Second table listing alloy compositions for various materials (e.g., 36X CN6J, IARM 85C, 36X 71500A) with columns for elements As, B, Be, C, Cd, Mg, Sb, Te, Ti, Zr, and Units.

Need a larger size? Most BS items are available in any height.

CRM NICKEL ALLOY SETS

available in SETS only, as grouped

analysis listed in mass %

NA: 28 mm Ø x 25 mm

MN5: 35 mm Ø x 30 mm
NB: 40 mm Ø x 25 mmN: 35 mm Ø x 30 mm
NC: 40 mm Ø x 12 mm

| Number | Ni | Al | As | Bi | C | Cd | Co | Cu | Fe | Mg | Mn | P | Pb | S | Sb | Si | Sn | Zn |
|-----------|-------|--------|--------|---------|----------|--------|--------|-------|--------|--------|--------|-----------|--------|----------|---------|--------|--------|--------|
| IMN NC1 | 23.17 | . | 0.0056 | 0.0011 | 0.0320 | 0.0142 | 0.0062 | . | 0.0501 | 0.0016 | 0.552 | 0.0147 | 0.0025 | 0.0709 | 0.0024 | 0.0854 | 0.0374 | 0.776 |
| IMN NC2 | 24.21 | 0.0219 | 0.0104 | 0.0046 | (0.0026) | 0.0189 | 0.0115 | . | 0.290 | 0.0024 | 0.413 | . | 0.0021 | 0.0837 | 0.0049 | 0.196 | 0.0457 | 0.508 |
| IMN NC3 | 24.68 | 0.229 | 0.0167 | 0.0077 | (0.0036) | 0.0120 | 0.0282 | . | 0.106 | 0.0561 | 0.148 | 0.0312 | 0.0027 | (0.0202) | 0.0084 | 0.0609 | 0.0171 | 0.244 |
| IMN NC4 | 25.39 | 0.332 | 0.0251 | 0.0117 | 0.0500 | 0.0049 | 0.101 | . | 0.426 | 0.0170 | 0.0172 | 0.0113 | 0.0120 | 0.0022 | 0.0113 | 0.0197 | 0.0087 | 0.0099 |
| IMN NC5 | 25.82 | 0.0749 | 0.0427 | 0.0213 | 0.0050 | 0.0018 | 0.151 | . | 0.369 | 0.0861 | 0.0623 | 0.0222 | 0.0409 | . | 0.0161 | 0.0198 | 0.0044 | 0.0152 |
| IMN NB1 | 23.77 | 0.071 | 0.024 | 0.011 | 0.040 | 0.016 | 0.010 | 75.71 | 0.11 | 0.017 | 0.029 | 0.025 | 0.011 | 0.0019 | 0.0025 | 0.093 | 0.0038 | 0.052 |
| IMN NB2 | 24.38 | 0.043 | 0.0045 | 0.0082 | 0.019 | 0.0053 | 0.023 | 74.73 | 0.085 | 0.0059 | 0.46 | 0.030 | 0.014 | 0.0084 | 0.0036 | 0.13 | 0.014 | 0.037 |
| IMN NB3 | 25.87 | 0.12 | 0.0076 | 0.0070 | 0.034 | 0.0082 | 0.017 | 73.20 | 0.14 | 0.013 | 0.23 | 0.019 | 0.011 | 0.011 | 0.0057 | 0.068 | 0.040 | 0.20 |
| IMN NB4 | 25.78 | 0.013 | 0.0097 | 0.0040 | 0.018 | 0.0064 | 0.013 | 73.45 | 0.21 | 0.028 | 0.015 | 0.0085 | 0.0084 | 0.015 | 0.0092 | 0.024 | 0.065 | 0.33 |
| IMN NB5 | 24.94 | 0.0014 | 0.011 | 0.0010 | 0.012 | 0.0012 | 0.0067 | 73.42 | 0.28 | 0.036 | 0.57 | 0.0036 | 0.0060 | 0.028 | 0.012 | 0.0057 | 0.10 | 0.57 |
| IMN N1 | 25.38 | . | . | . | . | . | 0.0050 | Rem | 0.0056 | . | 0.0018 | . | 0.0019 | . | . | 0.0070 | 0.0089 | 0.019 |
| IMN N2 | 24.28 | . | . | . | . | . | 0.023 | Rem | 0.35 | . | 0.21 | . | 0.011 | . | . | 0.025 | 0.012 | 0.16 |
| IMN N3 | 22.57 | . | . | . | . | . | 0.055 | Rem | 0.77 | . | 0.50 | . | 0.020 | . | . | 0.062 | 0.023 | 0.33 |
| IMN N4 | 21.39 | . | . | . | . | . | 0.080 | Rem | 1.07 | . | 0.71 | . | 0.039 | . | . | 0.13 | 0.038 | 0.47 |
| IMN NA1 | 7.19 | . | . | . | (0.020) | . | . | Rem | 2.52 | . | 1.51 | . | 0.081 | (0.081) | . | . | . | 0.80 |
| IMN NA2 | 9.05 | . | . | . | (0.023) | . | . | Rem | 2.03 | . | 1.03 | . | 0.056 | (0.065) | . | . | . | 0.55 |
| IMN NA3 | 10.35 | . | . | . | (0.019) | . | . | Rem | 1.15 | . | 0.60 | . | 0.035 | (0.036) | . | . | . | 0.30 |
| IMN NA4 | 12.15 | . | . | . | (0.012) | . | . | Rem | 0.50 | . | 0.21 | . | 0.0066 | (0.0069) | . | . | . | 0.019 |
| IMN MN5-1 | 3.21 | . | 0.0007 | 0.00011 | . | . | . | Rem | 0.0041 | . | . | (0.00027) | 0.0062 | . | 0.00019 | . | . | . |
| IMN MN5-2 | 4.50 | . | 0.0011 | 0.00071 | . | . | . | Rem | 0.033 | . | . | 0.010 | 0.012 | . | 0.00078 | . | . | . |
| IMN MN5-3 | 5.29 | . | 0.0017 | 0.0012 | . | . | . | Rem | 0.062 | . | . | 0.016 | 0.016 | . | 0.0013 | . | . | . |
| IMN MN5-4 | 5.90 | . | 0.0038 | 0.0018 | . | . | . | Rem | 0.083 | . | . | 0.026 | 0.024 | . | 0.0019 | . | . | . |

CRM SEBILOY / ENVIROBRASS / FEDERALLOY

| Number | Sn | Zn | Bi | Se | As | Co | Fe | Ni | P | Pb | Sb | Cu |
|-----------|-------|-------|-------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| 32X SEB4E | 10.05 | 7.02 | 2.48 | 0.119 | 0.0065 | 0.308 | 0.093 | 0.0199 | 0.0043 | 0.0357 | 0.0343 | 79.82 |
| 32X SEB6C | 7.14 | 4.55 | 0.615 | 0.322 | 0.083 | 0.231 | 0.151 | 0.860 | 0.0118 | 0.0463 | 0.235 | 85.66 |
| 32X SEB2D | 6.96 | 1.40 | 4.57 | 0.044 | 0.0160 | 0.0133 | 0.074 | 0.0449 | 0.036 | 0.104 | 0.0222 | 86.56 |
| IARM 266A | 6.9 | 3.48 | 2.37 | 0.001 | 0.004 | (0.001) | 0.035 | 0.46 | 0.032 | 0.010 | 0.010 | (87) |
| 32X SEB5C | 5.18 | 5.30 | 1.056 | 0.471 | . | 0.0156 | 0.0430 | 0.317 | 0.072 | 0.268 | 0.0334 | 87.21 |
| IARM 226A | 5.1 | 4.8 | 1.7 | 0.93 | 0.003 | 0.001 | 0.054 | 0.54 | 0.005 | 0.040 | 0.004 | 86.7 |
| IARM 227A | 5.1 | 4.70 | 2.3 | 1.21 | 0.003 | 0.001 | 0.060 | 0.53 | 0.003 | 0.042 | <0.01 | 85.9 |
| IARM 265A | 4.4 | 2.45 | 2.4 | (0.002) | (0.005) | (0.001) | 0.013 | 0.69 | 0.024 | 0.011 | 0.015 | (90) |
| 32X SEB1D | 4.26 | 7.81 | 4.25 | 0.812 | 0.0402 | 0.0478 | 0.071 | 0.102 | 0.0021 | 0.197 | 0.305 | 81.88 |
| IARM 228A | 4.1 | 4.1 | 1.53 | 0.67 | 0.003 | 0.001 | 0.052 | 0.45 | 0.032 | 0.026 | 0.010 | 89.0 |
| IARM 263A | 3.5 | 15.8 | 2.55 | (0.002) | 0.003 | 0.001 | 0.047 | 0.66 | 0.040 | 0.022 | 0.06 | (78) |
| 32X SEB7A | 3.20 | 4.42 | 3.58 | 1.19 | 0.038 | 0.119 | 0.074 | 1.165 | 0.0206 | 0.343 | 0.262 | 85.46 |
| IARM 264A | 3.03 | 5.33 | 3.6 | (0.001) | (0.004) | (0.001) | 0.048 | 0.54 | 0.027 | 0.057 | 0.074 | (87.3) |
| 32X SEB3E | 2.96 | 0.887 | 6.47 | 1.30 | 0.0325 | 0.0491 | 0.0113 | 1.214 | 0.0139 | 0.296 | 0.108 | 86.47 |

| Number | Ag | Al | B | C | Cd | Cr | Mn | N | O | S | Si | Units |
|-----------|---------|---------|---|---------|--------|-----------|---------|----------|---------|---------|-------|----------------------|
| 32X SEB4E | . | 0.0007 | . | . | 0.0017 | . | . | . | . | . | . | ~40 mm Ø x ~15 mm |
| 32X SEB6C | . | . | . | . | 0.0036 | . | . | . | . | . | . | 40 mm Ø x 15 mm |
| 32X SEB2D | 0.0443 | . | . | . | 0.0255 | In: 0.074 | . | . | . | 0.030 | . | ~40 mm Ø x ~15 mm |
| IARM 266A | (0.001) | 0.002 | . | (0.002) | . | (0.002) | (0.002) | . | . | (0.002) | 0.002 | 31 mm Ø x 2 or 18 mm |
| 32X SEB5C | . | (0.001) | . | . | 0.0051 | . | . | . | . | 0.050 | . | ~40 mm Ø x ~15 mm |
| IARM 226A | 0.004 | 0.002 | . | 0.003 | . | (0.001) | 0.002 | <0.0005 | (0.001) | 0.005 | 0.002 | 31 mm Ø x 2 or 18 mm |
| IARM 227A | 0.004 | 0.002 | . | 0.003 | . | (0.001) | 0.001 | (0.0002) | 0.0013 | 0.005 | 0.002 | 31 mm Ø x 2 or 18 mm |
| IARM 265A | (0.002) | 0.003 | . | . | . | (0.001) | (0.002) | . | . | (0.002) | 0.003 | 31 mm Ø x 2 or 18 mm |
| 32X SEB1D | . | . | . | . | 0.0033 | . | . | . | . | 0.0052 | . | ~40 mm Ø x ~15 mm |
| IARM 228A | 0.003 | 0.002 | . | 0.003 | . | 0.001 | 0.001 | <0.0005 | (0.002) | 0.004 | 0.002 | 31 mm Ø x 2 or 18 mm |
| IARM 263A | (0.006) | (0.002) | . | <0.005 | . | (0.002) | (0.002) | . | . | (0.002) | 0.003 | 31 mm Ø x 2 or 18 mm |
| 32X SEB7A | . | . | . | . | 0.0074 | . | . | . | . | 0.067 | . | 42 mm Ø x 17 mm |
| IARM 264A | (0.005) | 0.003 | . | (0.004) | . | (0.002) | (0.002) | . | . | 0.0013 | 0.003 | 31 mm Ø x 2 or 18 mm |
| 32X SEB3E | . | . | . | . | 0.0095 | . | . | . | . | 0.0180 | . | ~40 mm Ø x ~15 mm |

RM SILVER ALLOY

31 mm Ø x 2 or 18 mm

| Number | Ag | C | P | S | Zr |
|---|------|---------|---------|----------|------|
| IARM 159A | 3.48 | (0.002) | (<0.01) | (<0.01) | . |
| IARM 160A | 3.03 | 0.003 | (0.004) | (<0.003) | 0.40 |
| Al, Co, Cr, Fe, Mn, Ni, Pb, Si, Sn, and Zn: (<0.01) | | | | | |

RM TIN COPPER

cast typical analysis 32X: 40 mm Ø x 15 mm C: 50 mm Ø x 10-12 mm

| Number | Sn | Al | As | Bi | Cu | Fe | Mg | Mn | Ni | P | Pb | S | Sb | Si | Zn |
|--------|-----|--------|--------|---------|-----|--------|--------|--------|--------|-------|------|--------|--------|--------|--------|
| C11.04 | 9.6 | <0.005 | <0.005 | <0.0005 | rem | <0.005 | <0.001 | <0.005 | <0.005 | 0.05 | 0.01 | <0.001 | <0.005 | <0.005 | <0.005 |
| C11.03 | 7.4 | <0.005 | <0.005 | <0.0005 | rem | <0.005 | <0.001 | <0.005 | <0.005 | 0.04 | 0.01 | <0.001 | <0.005 | <0.005 | <0.005 |
| C11.02 | 5.5 | <0.005 | <0.005 | <0.0005 | rem | <0.005 | <0.001 | <0.005 | 0.006 | 0.02 | 0.02 | <0.001 | <0.005 | <0.005 | <0.005 |
| C11.01 | 3.4 | <0.005 | <0.005 | <0.0005 | rem | <0.005 | <0.001 | <0.005 | 0.006 | 0.009 | 0.01 | <0.001 | <0.005 | <0.005 | <0.005 |

CRM TIN COPPER SET

available in SET/5 only

40 mm Ø x 30 mm

| Number | Ag | As | Bi | Cu | Fe | Ni | P | Pb | Sb | Sn | Zn |
|---------|--------|---------|---------|-----|--------|--------|--------|--------|--------|------|--------|
| IMN CM1 | 0.010 | 0.0098 | 0.010 | Rem | 0.019 | 0.0086 | 0.0088 | 0.012 | 0.012 | 0.61 | 0.021 |
| IMN CM2 | 0.0061 | 0.0068 | 0.0072 | Rem | 0.0064 | 0.0055 | 0.0058 | 0.0067 | 0.0068 | 0.84 | 0.0061 |
| IMN CM3 | 0.0029 | 0.0036 | 0.0033 | Rem | 0.012 | 0.0031 | 0.0041 | 0.0038 | 0.0040 | 1.06 | 0.0060 |
| IMN CM4 | 0.0011 | 0.0011 | 0.00093 | Rem | 0.0042 | 0.0011 | 0.0009 | 0.0023 | 0.0019 | 1.30 | 0.0020 |
| IMN CM5 | . | (0.015) | 0.014 | Rem | 0.0094 | 0.014 | 0.015 | 0.019 | 0.018 | 1.14 | 0.013 |

CRM BRASS SETS

wrought available in SETS only, as grouped

MB: 40 mm Ø x 18 mm

ME, MG, WR: 35-40 mm Ø x 25-30 mm

WC: 40 mm Ø x 12 mm

| Number | Cu | Zn | Al | As | Bi | Cd | Co | Cr | Fe | Mn | Ni | P | Pb | Sb | Si | Sn |
|---------|-------|-------|----------|---------|---------|---------|---------|---------|--------|--------|--------|----------|--------|-----------|--------|--------|
| IMN MG1 | 91.14 | Rem | 0.040 | . | 0.00058 | . | . | . | 0.0081 | 0.0013 | 0.048 | (0.0019) | 0.049 | 0.00077 | . | 0.0062 |
| IMN MG2 | 90.08 | Rem | (0.0026) | . | 0.00039 | . | . | . | 0.0067 | 0.0007 | 0.0022 | 0.0012 | 0.0048 | (0.00084) | . | 0.018 |
| IMN MG3 | 93.19 | Rem | 0.020 | . | 0.0014 | . | . | . | 0.062 | 0.0096 | 0.013 | 0.018 | 0.015 | 0.0026 | . | 0.033 |
| IMN MG4 | 94.00 | Rem | . | . | 0.0017 | . | . | . | 0.091 | 0.024 | 0.0042 | 0.012 | 0.008 | 0.0045 | . | 0.023 |
| IMN MG5 | 95.09 | Rem | 0.0011 | . | 0.0026 | . | . | . | 0.149 | 0.0036 | 0.0021 | 0.0069 | 0.0054 | 0.0061 | . | 0.013 |
| IMN MG6 | 92.27 | Rem | 0.0067 | . | 0.00088 | . | . | . | 0.028 | 0.045 | 0.030 | 0.0026 | 0.031 | 0.0015 | . | 0.053 |
| IMN WC1 | 75.10 | Rem | 0.0034 | 0.0043 | 0.0028 | . | . | . | 0.031 | . | . | 0.015 | 0.046 | 0.0034 | 0.26 | 0.0032 |
| IMN WC2 | 75.05 | Rem | 0.0016 | 0.0024 | 0.0020 | . | . | . | 0.015 | . | . | 0.011 | 0.031 | 0.0023 | 0.41 | 0.0025 |
| IMN WC3 | 75.28 | Rem | 0.0018 | 0.0011 | 0.00093 | . | . | . | 0.021 | . | . | 0.0058 | 0.0085 | 0.0010 | 0.89 | 0.0011 |
| IMN WC4 | 75.32 | Rem | 0.00096 | . | 0.00047 | . | . | . | 0.0067 | . | . | 0.0048 | 0.0051 | 0.00080 | 0.76 | 0.0010 |
| IMN WC5 | 75.03 | Rem | 0.00084 | 0.0022 | 0.0019 | . | . | . | 0.18 | . | . | . | 0.0055 | 0.0011 | 0.48 | 0.0044 |
| IMN WC6 | 75.32 | Rem | 0.0019 | 0.00097 | 0.0012 | . | . | . | 0.051 | . | . | 0.0037 | 0.0036 | 0.00057 | 0.58 | 0.0028 |
| IMN ME2 | 71.29 | Rem | . | . | . | . | . | . | . | . | . | . | . | . | . | 0.87 |
| IMN ME3 | 70.70 | Rem | . | . | . | . | . | . | . | . | . | . | . | . | . | 1.11 |
| IMN ME4 | 69.40 | Rem | . | . | . | . | . | . | . | . | . | . | . | . | . | 1.21 |
| IMN ME5 | 68.53 | Rem | . | . | . | . | . | . | . | . | . | . | . | . | . | 1.42 |
| IMN MB1 | 60.66 | 39.39 | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| IMN MB2 | 67.17 | 32.80 | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| IMN MB3 | 73.26 | 26.67 | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| IMN MB4 | 78.77 | 21.20 | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| IMN MB5 | 84.25 | 15.63 | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| IMN MB6 | 90.07 | 9.95 | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| IMN MB7 | 95.00 | 4.99 | . | . | . | . | . | . | . | . | . | . | . | . | . | . |
| IMN WR1 | 55.72 | Rem | 0.496 | 0.203 | 0.00109 | 0.00045 | 0.00196 | 0.00049 | 0.0577 | 1.051 | 3.534 | 0.00122 | 0.0496 | 0.00046 | 1.097 | 0.605 |
| IMN WR2 | 56.99 | Rem | 1.092 | 0.0129 | 0.00642 | 0.00548 | 0.00210 | 0.00705 | 0.802 | 1.631 | 2.683 | 0.0311 | 0.291 | 0.00566 | 0.817 | 0.453 |
| IMN WR3 | 58.95 | Rem | 1.683 | 0.0492 | 0.0118 | 0.00807 | 0.0106 | 0.0149 | 0.184 | 1.674 | 1.799 | 0.0126 | 0.514 | 0.0150 | 0.566 | 0.254 |
| IMN WR4 | 60.07 | Rem | 2.297 | 0.00528 | 0.0211 | 0.0154 | 0.0154 | 0.0190 | 0.600 | 2.254 | 0.989 | 0.0213 | 0.683 | 0.0247 | 0.279 | 0.100 |
| IMN WR5 | 61.20 | Rem | 3.024 | 0.00129 | 0.0278 | 0.0200 | 0.0196 | 0.0253 | 0.141 | 3.070 | 0.251 | 0.0282 | 0.885 | 0.0334 | 0.0485 | 0.0116 |

| Number | Cu | Zn | Al | As | Bi | Cd | Co | Cr | Fe | Mn | Ni | P | Pb | Sb | Si | Sn |
|--------|----|----|----|----|----|----|----|----|----|----|----|---|----|----|----|----|
|--------|----|----|----|----|----|----|----|----|----|----|----|---|----|----|----|----|

RM TRACE ELEMENTS IN BRASS

cast 50 mm Ø x 10 - 12 mm

| Number | Cu | Zn | Al | As | Bi | Fe | Mn | Ni | Pb | Sb | Si | Sn |
|------------|-------|-------|--------|--------|---------|--------|---------|---------|--------|--------|---------|--------|
| C30.10 | 93.8 | 6.1 | <0.002 | <0.005 | <0.002 | <0.005 | <0.005 | <0.01 | <0.01 | <0.005 | <0.005 | <0.01 |
| C30.07 | 82.0 | rem | <0.002 | <0.005 | <0.002 | <0.005 | <0.005 | <0.01 | <0.01 | <0.005 | <0.005 | <0.01 |
| C30.06 | 74.8 | rem | <0.005 | <0.005 | <0.002 | <0.005 | <0.005 | <0.01 | <0.01 | <0.005 | <0.005 | <0.01 |
| CURM 30.05 | 69.48 | 30.53 | <0.001 | <0.001 | <0.003 | <0.003 | <0.0005 | <0.0005 | 0.002 | <0.005 | 0.001 | <0.001 |
| CURM 30.04 | 64.34 | 35.62 | <0.001 | <0.001 | <0.003 | 0.009 | <0.001 | <0.001 | 0.003 | <0.005 | 0.016 | 0.009 |
| C38.06 | (62) | rem | <0.001 | <0.005 | <0.001 | <0.002 | <0.002 | <0.005 | <0.005 | <0.002 | <0.002 | <0.002 |
| C38.06-1 | (62) | rem | <0.001 | <0.001 | <0.0005 | <0.005 | <0.001 | <0.005 | 0.002 | <0.002 | <0.002 | <0.002 |
| C30.17 | 61.6 | rem | <0.005 | <0.005 | <0.005 | 1.4 | <0.005 | 0.01 | 0.01 | <0.005 | <0.005 | <0.01 |
| C30.16 | 61.2 | rem | <0.002 | <0.005 | <0.002 | 0.90 | <0.005 | <0.01 | <0.01 | <0.005 | <0.005 | <0.01 |
| C38.01 | (61) | rem | 0.003 | 0.03 | <0.0005 | 0.01 | 0.009 | 0.01 | 0.20 | 0.02 | <0.0005 | 0.20 |
| C38.02 | (61) | rem | 0.004 | 0.06 | 0.005 | 0.09 | 0.14 | 0.03 | 0.10 | 0.06 | 0.01 | 0.09 |
| C38.03 | (61) | rem | 0.06 | 0.08 | 0.008 | 0.05 | 0.07 | 0.13 | 0.06 | 0.08 | 0.07 | 0.05 |
| C38.04 | (61) | rem | 0.02 | 0.04 | 0.008 | 0.04 | 0.22 | 0.06 | 0.03 | 0.12 | 0.12 | 0.02 |
| C38.05 | (61) | rem | 0.12 | 0.01 | 0.01 | 0.008 | 0.02 | 0.19 | 0.02 | 0.01 | 0.14 | 0.01 |
| C30.12 | 60.85 | rem | <0.005 | <0.005 | <0.002 | <0.005 | 0.90 | 0.52 | <0.01 | <0.005 | <0.005 | <0.01 |
| C30.03 | 60.6 | 39.3 | <0.002 | <0.005 | <0.005 | <0.005 | <0.005 | <0.01 | <0.01 | <0.005 | <0.005 | <0.01 |
| C30.13 | 60.6 | rem | <0.002 | <0.005 | <0.002 | <0.005 | 1.9 | <0.01 | <0.01 | <0.005 | <0.005 | <0.01 |
| C30.15 | 60.6 | rem | <0.002 | <0.005 | <0.002 | 0.55 | <0.005 | <0.01 | <0.01 | <0.005 | <0.005 | <0.01 |
| C30.14 | 60.5 | rem | <0.005 | <0.005 | <0.005 | <0.01 | 2.4 | 1.0 | <0.01 | <0.005 | <0.005 | <0.005 |
| C30.22 | 58.28 | rem | <0.003 | 0.011 | <0.005 | 0.006 | <0.005 | <0.01 | 1.05 | <0.012 | <0.005 | 0.009 |
| C30.02 | 55.6 | rem | <0.002 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.01 | <0.005 | <0.005 | <0.01 |
| C30.01 | 51.48 | rem | <0.002 | <0.005 | 0.005 | <0.005 | <0.005 | <0.005 | <0.01 | <0.005 | <0.005 | <0.01 |

last of stock
current batch

RM BRASS MUSHROOMS

chill cast

typical analysis

60 mm Ø x 5 mm

| Number | Zn | Cu | Al | As | Be | Fe | Ni | Mg | Mn | P | Pb | Sb | Si | Sn |
|------------|-------|-------|-------|--------|-------|-------|-------|------|--------|-------|-------|------|-------|-------|
| CTIF L 7 | 42.45 | 55.6 | 0.308 | . | . | 0.031 | 0.020 | . | 0.62 | . | 0.71 | . | 0.13 | 0.038 |
| CTIF L 1-1 | 39.7 | 59.60 | 0.015 | . | . | 0.017 | 0.106 | . | . | 0.080 | 0.062 | . | 0.36 | 0.046 |
| CTIF L 2 | 35.55 | 61.55 | 0.485 | . | . | 0.216 | 0.71 | . | 0.350 | . | 0.408 | . | 0.202 | 0.48 |
| CTIF L 4-1 | 34.55 | 61.75 | 0.100 | . | . | 0.466 | 0.227 | . | 0.109 | . | 2.017 | . | 0.12 | 0.693 |
| CTIF L 3 | 32.70 | 62.35 | 0.91 | . | . | 0.36 | 0.90 | . | 0.205 | . | 1.02 | . | 0.034 | 1.50 |
| CTIF L 6 | 30.26 | 66.55 | 0.139 | . | . | 0.085 | 1.21 | . | 0.055 | . | 0.205 | . | 1.25 | 0.250 |
| CTIF L 23 | 17.90 | 81.20 | . | 0.051 | . | 0.246 | 0.033 | . | . | 0.05 | 0.058 | . | 0.280 | 0.20 |
| CTIF UZ 52 | 16.90 | 81.18 | . | . | 0.014 | 0.32 | 0.084 | 0.04 | 0.002 | 0.068 | 0.11 | 0.08 | 0.12 | 1.06 |
| CTIF UZ 53 | 16.67 | 82.60 | . | 0.01 | . | 0.255 | 0.025 | . | <0.001 | 0.055 | 0.025 | . | 0.145 | 0.205 |
| CTIF L 21 | 15.40 | 82.50 | . | 0.103 | . | 0.086 | 0.156 | . | 0.004 | 0.05 | 0.209 | 0.10 | 0.036 | 1.5 |
| CTIF L 22 | 15.0 | 84.3 | <0.02 | <0.006 | . | 0.20 | 0.10 | . | <0.01 | . | 0.10 | . | <0.05 | 1.0 |
| CTIF L 20 | 13.10 | 85.55 | 0.008 | 0.122 | . | 0.115 | 0.205 | . | 0.043 | . | 0.27 | . | 0.035 | 0.56 |

BRASS

= class, where 1 = CRM and 2 = RM

CURM: cast 50 mm Ø x 10-12 mm
SRM: wrought 31 mm Ø x 19 mmPB: 45 mm Ø x 25 mm
others: chill cast ~40-43 mm Ø x ~15-18 mm

| # | Number | Zn | Cu | Al | As | Bi | Fe | Mn | Ni | Pb | Sb | Si | Sn |
|---|------------|-------|-------|----------|--------|--------|--------|---------|--------|--------|---------|---------|--------|
| 1 | 31X B25B | 40.83 | 56.95 | 0.470 | 0.0284 | 0.0594 | 0.056 | 0.127 | 0.236 | 0.298 | 0.0843 | 0.254 | 0.613 |
| 1 | 31X TB5A | 40.63 | 55.84 | 0.0458 | 0.349 | 0.314 | 0.178 | 0.445 | 0.079 | 0.576 | 0.174 | 0.122 | 0.107 |
| 1 | 31X B2M | 39.50 | 60.42 | (0.0010) | 0.0049 | 0.0105 | 0.0146 | 0.0147 | 0.0121 | 0.0103 | 0.0111 | 0.0047 | 0.0113 |
| 1 | 331X B18K | 39.41 | 59.37 | 0.0193 | 0.0215 | 0.0196 | 0.0237 | 0.0207 | 0.0233 | 1.018 | 0.0205 | 0.019 | 0.0117 |
| 1 | 31X B18J | 39.11 | 59.82 | 0.0235 | 0.0196 | 0.0051 | 0.0185 | 0.00110 | 0.0143 | 0.916 | 0.0129 | 0.018 | 0.045 |
| 2 | CURM 30.15 | 38.88 | 60.66 | <0.001 | . | . | 0.50 | <0.001 | <0.001 | <0.005 | . | <0.005 | <0.002 |
| 2 | CURM 30.16 | 38.33 | 60.53 | <0.001 | . | . | 1.14 | <0.001 | <0.001 | <0.005 | . | <0.005 | <0.002 |
| 2 | CURM 30.11 | 38.17 | 59.86 | <0.001 | . | . | 0.002 | 0.23 | 1.70 | 0.005 | . | <0.001 | <0.002 |
| 1 | 31X TB3K | 37.92 | 61.58 | 0.0045 | 0.0454 | 0.0030 | 0.0282 | 0.0244 | 0.0637 | 0.169 | 0.0222 | 0.016 | 0.089 |
| 2 | SRM 1107 | 37.3 | 61.2 | . | . | . | 0.037 | . | 0.098 | 0.18 | . | . | 1.04 |
| 1 | 31X B11H | 36.65 | 60.72 | 0.0262 | 0.0061 | 0.0054 | 0.802 | 0.653 | 1.033 | 0.0134 | 0.0057 | 0.0063 | 0.0117 |
| 1 | 31X B10M | 36.05 | 60.18 | 0.358 | 0.0087 | 0.0215 | (1.39) | 0.205 | 1.475 | 0.0274 | 0.0124 | 0.0389 | 0.0310 |
| 1 | 31X TB1K | 35.17 | 63.08 | 0.493 | 0.111 | 0.0414 | 0.171 | 0.280 | 0.0619 | 0.207 | 0.105 | 0.080 | 0.134 |
| 1 | 31X TB4G | 33.64 | 66.07 | 0.0041 | 0.0106 | 0.0058 | 0.0340 | 0.0013 | 0.0133 | 0.0246 | 0.0095 | 0.0203 | 0.0197 |
| 1 | 31X B26F | 30.30 | 62.93 | 1.005 | 0.126 | 0.106 | 0.649 | 0.408 | 1.396 | 0.930 | 0.098 | 0.252 | 1.476 |
| 1 | 31X B21E | 29.55 | 69.32 | 0.0244 | 0.0908 | 0.104 | 0.126 | 0.0603 | 0.117 | 0.113 | 0.105 | 0.059 | 0.101 |
| 1 | 31X B4M | 28.97 | 70.60 | 0.0011 | 0.0516 | 0.0103 | 0.111 | 0.0011 | 0.0649 | 0.045 | 0.0118 | (0.002) | 0.053 |
| 1 | 31X B6B | 19.93 | 79.90 | 0.0010 | 0.0009 | 0.0010 | 0.0097 | 0.0039 | 0.0066 | 0.0122 | 0.0011 | 0.015 | 0.0029 |
| 1 | 31X B27B | 17.65 | 80.65 | 0.0015 | 0.048 | 0.0320 | 0.111 | 0.0059 | 0.0315 | 0.492 | 0.0243 | 0.0044 | 0.985 |
| 1 | 31X B22F | 15.92 | 82.47 | 0.0402 | 0.165 | 0.17 | 0.158 | . | 0.154 | 0.152 | 0.161 | 0.047 | 0.160 |
| 1 | 31X B7L | 15.34 | 84.22 | 0.0435 | 0.0054 | 0.0607 | 0.099 | 0.0088 | 0.0351 | 0.0416 | 0.0196 | 0.018 | 0.089 |
| 1 | SRM 1110 | 15.2 | 84.5 | . | . | . | 0.033 | . | 0.053 | 0.033 | . | . | 0.051 |
| 1 | SRM 1111 | 12.8 | 87.1 | . | . | . | 0.010 | . | 0.022 | 0.013 | . | . | 0.019 |
| 1 | 31X B8J | 10.23 | 89.37 | (0.001) | 0.0074 | 0.030 | 0.132 | 0.0006 | 0.0421 | 0.082 | 0.0254 | (0.002) | 0.0311 |
| 1 | 31X B23D | 9.97 | 89.57 | 0.0048 | 0.0482 | 0.0463 | 0.060 | 0.0053 | 0.047 | 0.046 | 0.0448 | 0.0046 | 0.060 |
| 1 | 31X B9L | 3.83 | 96.05 | (0.0005) | 0.0053 | 0.0068 | 0.0168 | 0.0017 | 0.0129 | 0.0549 | 0.0075 | 0.0036 | 0.0245 |
| 1 | 31X B24D | 1.99 | 95.65 | (0.0024) | 0.0116 | 0.0126 | 0.0342 | 0.0030 | 0.134 | 0.050 | 0.118 | . | 1.93 |
| 2 | PB MS10 | . | 84.26 | . | 0.014 | 0.37 | 0.28 | 0.016 | 0.025 | 0.020 | (0.009) | 0.12 | 0.052 |

| # | Number | Zn | Cu | Al | As | Bi | Fe | Mn | Ni | Pb | Sb | Si | Sn |
|---|------------|-----------|-----------|--------|--------|------------|----|--------|------------|-----------------------------|----|--------|-------|
| | Number | B | C | Cd | Co | Cr | Hg | P | S | Se | | | |
| | 31X B25B | (0.0045) | . | . | . | . | . | 0.093 | . | . | . | . | . |
| | 31X TB5A | Ag:0.213 | . | 0.501 | 0.0229 | (0.20) | . | . | . | . | . | . | . |
| | 31X B2M | 0.0008 | . | 0.0029 | 0.0032 | . | . | 0.0121 | . | . | . | . | . |
| | 31X B18K | Ag:0.0143 | . | 0.0254 | 0.0015 | (0.013) | . | 0.0195 | Te:0.017 | . | . | . | . |
| | 31X B18J | . | . | . | . | . | . | 0.0117 | <0.005 | ~12mm height, last of stock | . | . | . |
| | CURM 30.15 | . | . | . | . | . | . | . | . | . | . | . | . |
| | CURM 30.16 | . | . | . | . | . | . | . | . | . | . | . | . |
| | CURM 30.11 | . | . | . | . | . | . | . | . | . | . | . | . |
| | 31X TB3K | (0.0005) | . | 0.0043 | . | . | . | . | . | . | . | . | . |
| | SRM 1107 | . | . | . | . | . | . | . | . | . | . | . | . |
| | 31X B11H | . | . | . | . | . | . | . | . | . | . | . | . |
| | 31X B10M | . | . | . | 0.0390 | 0.0192 | . | 0.033 | . | . | . | . | . |
| | 31X TB1K | 0.0010 | Ag:0.0455 | 0.0118 | 0.0500 | . | . | 0.0201 | . | . | . | . | . |
| | 31X TB4G | (0.0004) | . | 0.0032 | 0.0067 | . | . | . | Te:0.0035 | . | . | . | . |
| | 31X B26F | 0.0011 | Ag:0.053 | 0.0147 | 0.1197 | . | . | 0.0593 | Te:(0.009) | . | . | . | . |
| | 31X B21E | . | . | . | . | . | . | 0.1269 | (0.002) | Te:0.0353 | . | . | . |
| | 31X B4M | . | . | 0.0236 | 0.0263 | 0.0038 | . | 0.0302 | 0.0114 | . | . | . | . |
| | 31X B6B | 0.0023 | . | 0.0037 | 0.0063 | <0.0005 | . | . | . | . | . | . | . |
| | 31X B27B | (0.0005) | (0.0014) | . | . | . | . | 0.0159 | 0.0080 | . | . | . | . |
| | 31X B22F | 0.0043 | . | 0.0117 | 0.139 | . | . | 0.207 | 0.030 | . | . | . | . |
| | 31X B7L | 0.0013 | . | 0.0064 | 0.0044 | Te:(0.002) | . | . | . | . | . | . | . |
| | SRM 1110 | . | . | . | . | . | . | . | . | . | . | . | . |
| | SRM 1111 | . | . | . | . | . | . | . | . | . | . | . | . |
| | 31X B8J | . | . | 0.0155 | 0.0072 | (0.0005) | . | 0.0026 | 0.045 | . | . | . | . |
| | 31X B23D | . | . | 0.0010 | 0.0472 | . | . | 0.030 | 0.053 | . | . | . | . |
| | 31X B9L | (0.0003) | . | . | . | . | . | . | . | . | . | 0.0029 | . |
| | 31X B24D | . | . | 0.0008 | . | . | . | 0.0065 | 0.050 | . | . | . | 1.93 |
| | PB MS10 | . | . | . | . | . | . | . | . | . | . | . | 0.052 |
| | Number | B | C | Cd | Co | Cr | Hg | P | S | Se | | | |

ALUMINUM BRASS

= class, where 1 = CRM and 2 = RM

| # | Number | Al | Zn | Cu | As | Bi | Fe | Mn | Ni | Pb | Sb | Si | Sn | Other | Units |
|---|-------------|-------|---------|--------|---------|----------|--------|----------|---------|----------|----------|---------|---------|---------------------|----------------------|
| 2 | CTIF LH1-1 | 7.99 | 16.90 | 64.90 | . | . | 4.48 | 5.18 | 0.0944 | 0.022 | 0.081 | 0.205 | (0.007) | P: 0.079 | 60 mm Ø x 5 mm |
| 2 | CTIF LH 2 | 6.20 | 21.95 | 61.98 | . | . | 2.98 | 3.65 | 3.00 | 0.080 | . | 0.086 | 0.055 | . | 60 mm Ø x 5 mm |
| 2 | CTIF LH 6-1 | 6.09 | 18.98 | 63.18 | . | . | (3.1) | 4.54 | 3.19 | 0.25 | . | 0.20 | 0.257 | . | 60 mm Ø x 5 mm |
| 1 | 31X B17F | 6.05 | 33.9 | 60.0 | (0.015) | (<0.005) | (0.02) | (<0.005) | (0.01) | (0.05) | (<0.005) | (0.007) | 0.010 | . | ~40 mm Ø x ~15-18 mm |
| 1 | BAM 388 | 4.972 | 4.81 | 89.27 | . | . | 0.0303 | 0.0512 | 0.00736 | 0.000969 | . | . | 0.857 | . | 40 mm Ø x 30 mm |
| 2 | C30.19 | 4.65 | rem | 69.9 | <0.005 | <0.002 | <0.005 | <0.005 | <0.01 | <0.01 | <0.01 | <0.005 | 1.07 | . | 50 mm Ø x 10-12 mm |
| 1 | 31X B14G | 4.02 | 36.52 | 58.85 | 0.0091 | 0.0103 | 0.0183 | 0.0117 | 0.0190 | 0.0104 | 0.0139 | 0.051 | 0.486 | Ag:0.0130 Co:0.0109 | ~40mmØ x ~15mm |
| 2 | CTIF LH 5-1 | 3.65 | 25.72 | 66.0 | . | . | 1.26 | 1.37 | 1.57 | 0.110 | . | 0.114 | 0.141 | . | 60 mm Ø x 5 mm |
| 2 | CURM 30.18 | 3.28 | 32.33 | 63.66 | . | . | 0.006 | <0.001 | <0.001 | <0.005 | . | 0.131 | 0.58 | . | 50 mm Ø x 10-12 mm |
| 2 | CTIF LH 7 | 3.16 | (26.85) | 63.40 | . | . | (2.35) | 2.96 | 0.70 | 0.327 | . | 0.055 | 0.227 | . | 50 mm Ø x 5 mm |
| 1 | 31X B15H | 2.98 | 36.80 | 59.07 | 0.0048 | 0.0074 | 0.0176 | 0.0122 | 0.0102 | 0.0073 | 0.0111 | 0.109 | 0.944 | Ag:0.0071 Co:0.0046 | ~40mmØ x ~15mm |
| 2 | C30.18 | 2.91 | rem | 64.36 | <0.005 | <0.003 | <0.005 | <0.005 | <0.005 | <0.01 | <0.005 | 0.10 | 0.65 | . | 50 mm Ø x 10-12 mm |
| 2 | CURM 43.01 | 2.75 | 22.44 | 74.36 | 0.118 | <0.002 | 0.008 | 0.064 | 0.121 | <0.002 | <0.001 | 0.063 | 0.116 | . | 50 mm Ø x 10-12 mm |
| 2 | CTIF LH 10 | 2.66 | 28.90 | 59.05 | . | . | (1.0) | 3.57 | 1.49 | 1.76 | . | 1.30 | 0.203 | . | 60 mm Ø x 5 mm |
| 2 | CURM 43.02 | 2.40 | 20.82 | 77.01 | 0.083 | <0.001 | 0.128 | 0.035 | 0.068 | 0.064 | <0.001 | 0.038 | 0.060 | . | 50 mm Ø x 10-12 mm |
| 2 | CURM 30.20 | 2.32 | 35.71 | 61.46 | . | . | <0.005 | <0.001 | <0.001 | <0.002 | . | 0.17 | 0.40 | . | 50 mm Ø x 10-12 mm |
| 2 | CTIF LH 13 | 2.00 | 31.8 | 55.75 | . | . | (2.00) | 3.14 | 3.22 | 0.67 | . | 0.21 | 1.19 | . | 60 mm Ø x 5 mm |
| 1 | 31X B16H | 1.98 | 37.18 | 58.37 | 0.0056 | 0.0042 | 0.0162 | 0.0029 | 0.0076 | 0.0295 | 0.0126 | 0.197 | 2.13 | Ag:0.0052 Co:0.0023 | ~40mmØ x ~15mm |
| 2 | C43.03 | 1.6 | rem | 79.7 | <0.005 | <0.005 | 0.07 | <0.002 | <0.005 | 0.10 | <0.01 | <0.005 | <0.005 | . | 50 mm Ø x 10-12 mm |
| 1 | BAM 368 * | 1.972 | rem | 77.049 | 0.0246 | . | 0.0193 | 0.0203 | 0.0258 | 0.01313 | (0.002) | . | 0.0147 | P: 0.00899 | 40 mm Ø x 30 mm |
| 2 | C30.21 | 1.44 | rem | 56.0 | <0.005 | . | <0.005 | <0.005 | <0.005 | <0.005 | <0.01 | 0.18 | 1.96 | . | 50 mm Ø x 10-12 mm |
| 2 | CURM 30.21 | 1.44 | 40.08 | 56.23 | . | . | 0.003 | <0.001 | <0.001 | 0.004 | . | 0.213 | 2.01 | . | 50 mm Ø x 10-12 mm |
| 2 | CTIF LH 12 | 1.13 | 33.15 | 62.75 | . | . | (1.2) | 0.125 | 0.505 | 0.21 | . | (0.06) | 0.83 | . | 60 mm Ø x 5 mm |
| 2 | CTIF LH 11 | 0.46 | 26.20 | 66.80 | . | . | 0.36 | 0.71 | 2.91 | 1.26 | . | 0.88 | 0.44 | . | 60 mm Ø x 5 mm |

* BAM 368 also contains 62.1 ppm Mg

CRM ALUMINUM BRASS SET

available in SET/4 only

40 mm Ø x 35 mm

| Number | Al | As | Bi | Cd | Cr | Cu | Fe | Mg | Mn | Ni | P | Pb | Sb | Si | Sn | Zn |
|---------|------|-------|--------|--------|---------|-------|-------|---------|-------|--------|--------|-------|---------|-------|--------|-----|
| IMN W01 | 1.33 | 0.056 | 0.0003 | 0.013 | 0.013 | 78.85 | 0.13 | 0.00060 | 0.014 | 0.0043 | 0.0023 | 0.15 | 0.0083 | 0.044 | 0.011 | Rem |
| IMN W02 | 1.76 | 0.041 | 0.0014 | 0.032 | 0.0098 | 77.80 | 0.050 | 0.0066 | 0.16 | 0.031 | 0.0090 | 0.098 | 0.00098 | 0.013 | 0.056 | Rem |
| IMN W03 | 2.15 | 0.015 | 0.0047 | 0.039 | 0.0027 | 77.58 | 0.029 | 0.0055 | 0.051 | 0.11 | 0.0062 | 0.054 | 0.0035 | 0.007 | 0.0071 | Rem |
| IMN W04 | 2.50 | 0.030 | 0.0098 | 0.0063 | 0.00034 | 76.20 | 0.022 | 0.013 | 0.074 | 0.077 | 0.015 | 0.020 | 0.0058 | 0.001 | 0.13 | Rem |

CRM BISMUTH BRASS

chill cast

analysis listed in mass % except * which is mg/kg

~40 mm Ø x ~15 mm

| Number | Bi | Zn | Cu | Al | As | B* | Cd* | Co | Fe | Mn | Ni | P | Pb | S* | Sb | Se* | Si | Sn |
|-------------|------|-------|-------|-------|--------|----|-----|--------|--------|--------|-------|--------|-------|------|--------|-----|--------|-------|
| 31X BIB3C | 4.04 | 31.83 | 63.18 | 0.154 | 0.0476 | . | 14 | 0.0032 | 0.0510 | . | 0.127 | 0.0626 | 0.181 | 18 | 0.0321 | 47 | 0.0516 | 0.198 |
| 31X BIB1D | 1.87 | 37.20 | 59.57 | 0.124 | 0.0303 | . | 100 | . | 0.053 | 0.0273 | 0.255 | 0.0451 | 0.157 | (10) | 0.0106 | 31 | 0.169 | 0.463 |
| 31X BIB4C * | 0.86 | 34.6 | (62) | 0.41 | 0.013 | . | 30 | 0.03 | 0.12 | . | 0.21 | 0.038 | 0.09 | . | 0.05 | 130 | 0.2 | 0.87 |

* Provisional analysis

RM CARTRIDGE BRASS

cast typical analysis listed in mass %

50 mm Ø x 10 - 12 mm

| Number | Zn | Cu | Al | As | Bi | Cd | Cr | Fe | Mg | Mn | Ni | P | Pb | S | Sb | Si | Sn |
|------------|-------|-------|--------|--------|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|
| CURM 48.01 | 32.6 | 66.98 | <0.001 | 0.067 | 0.038 | <0.0003 | * | 0.049 | 0.0008 | <0.001 | 0.134 | 0.016 | 0.106 | <0.001 | 0.047 | 0.041 | <0.002 |
| CURM 48.02 | 32.58 | 67.16 | 0.013 | 0.025 | 0.004 | * | 0.004 | 0.053 | * | 0.067 | <0.001 | 0.012 | 0.084 | 0.007 | 0.037 | 0.010 | 0.035 |
| CURM 48.05 | 31.0 | 68.69 | <0.002 | <0.001 | * | <0.0003 | * | 0.066 | * | 0.016 | 0.117 | 0.007 | <0.003 | 0.013 | * | 0.026 | 0.083 |
| C48.03 | rem | 70.45 | 0.007 | 0.079 | 0.029 | 0.013 | 0.0005 | <0.001 | 0.001 | 0.040 | 0.030 | <0.001 | 0.054 | 0.004 | 0.097 | <0.002 | 0.047 |
| C48.06 | rem | 71.6 | 0.002 | 0.008 | 0.004 | 0.008 | 0.0006 | 0.02 | 0.001 | 0.006 | 0.11 | 0.002 | 0.02 | 0.006 | 0.006 | 0.006 | 0.03 |
| CURM 48.04 | 26.99 | 72.68 | <0.001 | 0.034 | 0.014 | <0.0003 | <0.002 | 0.008 | 0.0005 | 0.012 | 0.096 | 0.006 | 0.043 | 0.011 | 0.026 | 0.004 | 0.018 |

* For the above chart, * indicates a value of <0.0005

CRM CARTRIDGE BRASS SET

available in SET/5 only

remainder is Zinc

wrought 40 mm Ø x 25 mm

| Number | Ag | Al | As | Be | Bi | Cd | Cu | Fe | Mn | Ni | P | Pb | S | Sb | Si | Sn | Te |
|---------|--------|--------|--------|---------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| IMN MH1 | 0.0029 | 0.0010 | 0.0670 | 0.0088 | 0.0037 | 0.0260 | 65.93 | 0.0170 | 0.0350 | 0.2600 | 0.0160 | 0.0065 | 0.0034 | 0.0004 | 0.0740 | 0.1400 | 0.0004 |
| IMN MH2 | 0.0110 | 0.0190 | 0.0410 | 0.0015 | 0.0022 | 0.0180 | 68.25 | 0.0270 | 0.0110 | 0.2200 | 0.0055 | 0.0210 | 0.0055 | 0.0240 | 0.0540 | 0.0970 | 0.0015 |
| IMN MH3 | 0.0065 | 0.0081 | 0.0160 | 0.0003 | 0.0011 | 0.0089 | 71.28 | 0.0810 | 0.0850 | 0.1000 | 0.0035 | 0.0780 | 0.0090 | 0.0130 | 0.0310 | 0.0240 | 0.0046 |
| IMN MH4 | . | 0.0027 | 0.0011 | 0.0045 | 0.0006 | 0.0029 | 69.94 | 0.1300 | 0.0017 | 0.0520 | 0.0022 | 0.3300 | 0.0043 | 0.0170 | 0.0160 | 0.0110 | 0.0035 |
| IMN MH5 | 0.0250 | 0.0140 | 0.0038 | 0.00004 | . | 0.0012 | 72.87 | 0.1900 | 0.0720 | 0.0072 | 0.0011 | 0.2000 | 0.0180 | 0.0035 | 0.0039 | 0.0021 | 0.0047 |

CRM LEADED BRASS SET

available in SET/5 only

40 mm Ø x 30 mm

| Number | Al | Bi | Cu | Fe | Mn | Ni | P | Pb | Sb | Si | Sn | Zn |
|---------|-----------|--------|-------|--------|----------|--------|-------|------|----------|----------|----------|------------------|
| IMN WG1 | 0.096 | 0.0013 | 60.99 | 0.0084 | 0.16 | 0.20 | 0.029 | 0.71 | (0.062) | (0.0046) | 0.29 | Rem |
| IMN WG2 | (0.00095) | 0.016 | 56.99 | 0.42 | (0.0024) | 0.0051 | . | 2.66 | (0.0024) | (0.021) | (0.0025) | Rem |
| IMN WG3 | 0.041 | 0.0057 | 58.20 | 0.31 | 0.037 | 0.029 | 0.013 | 2.29 | 0.018 | (0.014) | 0.091 | Rem |
| IMN WG4 | 0.073 | 0.014 | 60.05 | 0.10 | 0.12 | 0.16 | 0.020 | 1.41 | (0.042) | (0.016) | 0.21 | Rem # 4 sold out |
| IMN WG5 | 0.058 | 0.0094 | 59.32 | 0.18 | 0.074 | 0.078 | 0.016 | 1.66 | 0.034 | (0.022) | 0.14 | Rem |
| IMN WG6 | 0.020 | 0.023 | 60.67 | 0.18 | 0.21 | 0.29 | 0.044 | 3.70 | (0.0078) | (0.019) | 0.40 | Rem |

CRM MANGANESE BRASS

chill cast analysis listed in mass % except * which is mg/kg

31X: ~40 mm Ø x ~15-18 mm

CTIF: 2 Discs 60 mm Ø x 5 mm

| Number | Mn | Zn | Cu | Al | Fe | Ni | Pb | Si | Sn | As | Co | P | Sb | Ag* | Bi* | Cd* | Cr* |
|------------|-------|-------|-------|--------|--------|-------|--------|--------|--------|--------|--------|--------|---------|-----|-----|-----|-------------|
| 31X MNB12B | 18.37 | 21.76 | 56.03 | 0.70 | 0.313 | 0.497 | 1.96 | 0.0487 | 0.194 | 0.0077 | 0.0040 | 0.0521 | 0.0072 | . | 204 | 14 | 13 C:0.0125 |
| 31X MNB3E | 3.08 | 25.97 | 66.18 | 0.584 | 1.15 | 0.348 | 0.504 | 1.53 | 0.459 | 0.0179 | 0.0556 | 0.0259 | 0.0056 | 162 | . | . | . |
| 31X MNB4F | 2.97 | 25.59 | 64.62 | 3.91 | 1.728 | 0.347 | 0.221 | 0.103 | 0.547 | 0.0125 | 0.0312 | 0.0274 | 0.018 | 131 | . | . | . |
| 31X B13G | 2.84 | 36.67 | 60.03 | 0.0148 | 0.182 | 0.212 | 0.0188 | 0.032 | 0.0127 | 0.0120 | . | . | 0.0056 | . | 116 | . | . |
| 31X MNB2D | 2.08 | 31.30 | 63.75 | 0.272 | 0.548 | 0.118 | 0.983 | 0.579 | 0.289 | 0.0201 | 0.0086 | 0.0246 | 0.0177 | 410 | . | . | . |
| 31X B12G | 1.720 | 36.66 | 60.51 | 0.081 | 0.430 | 0.491 | 0.0244 | 0.0207 | 0.0229 | 0.0181 | . | . | 0.0194 | . | 198 | . | . |
| 31X MNB6C | 0.871 | 28.51 | 70.01 | 0.0148 | 0.0697 | 0.261 | 0.016 | 0.0196 | 0.0308 | 0.0107 | 0.0107 | 0.0226 | 0.0128 | 509 | . | . | . |
| 31X MNB1C | 0.188 | 29.37 | 67.77 | 0.599 | 0.268 | 0.053 | 1.44 | 0.128 | 0.105 | . | . | . | . | . | . | . | . |
| 31X MNB5R | 0.175 | 37.11 | 55.14 | 3.24 | 0.898 | 1.32 | 0.157 | 0.528 | 1.228 | 0.0021 | 0.066 | 0.0399 | (0.006) | 195 | . | . | 116 |

CRM MANGANESE BRASS DISC AND ROD SETS

available in SETS ONLY, as grouped

IMN MA: 10 mm Ø x 100 mm

IMN WF: 44 mm Ø x 30 mm

| Number | Al | As | Bi | Cu | Fe | Mn | Ni | P | Pb | Sb | Si | Sn | Zn |
|---------|------|--------|---------|-------|-------|------|-------|----------|-------|---------|-------|-------|-----|
| IMN MA1 | 1.51 | 0.085 | 0.0020 | 55.50 | 0.073 | 3.37 | 0.39 | 0.10 | 0.16 | 0.0061 | 0.071 | 1.04 | Rem |
| IMN MA2 | 3.35 | 0.0081 | 0.0029 | 60.88 | 1.27 | 1.30 | 0.011 | 0.015 | 0.020 | 0.0019 | 0.042 | 0.41 | Rem |
| IMN MA3 | . | 0.029 | 0.028 | 57.04 | 0.55 | 0.78 | 0.13 | 0.040 | 0.049 | 0.14 | 0.50 | 0.74 | Rem |
| IMN MA4 | 0.33 | . | . | 57.40 | 0.20 | 2.75 | 0.69 | 0.15 | . | 0.20 | 0.27 | 0.015 | Rem |
| IMN MA5 | 1.04 | 0.11 | 0.020 | 58.51 | 0.70 | 1.97 | 1.01 | 0.062 | 1.20 | 0.072 | 0.65 | 0.046 | Rem |
| IMN MA6 | 2.15 | 0.013 | 0.0072 | 60.45 | 1.72 | 0.50 | 0.056 | 0.019 | 0.60 | 0.016 | 0.013 | 0.13 | Rem |
| IMN WF1 | . | . | 0.00059 | 56.47 | 0.097 | 2.16 | 0.010 | (0.0012) | 0.010 | 0.00058 | . | 0.012 | Rem |
| IMN WF2 | . | . | 0.00091 | 57.66 | 0.21 | 1.79 | 0.040 | (0.0032) | 0.040 | 0.0018 | . | 0.045 | Rem |
| IMN WF3 | . | . | 0.0015 | 58.66 | 0.29 | 1.36 | 0.10 | 0.0075 | 0.070 | 0.0036 | . | 0.072 | Rem |
| IMN WF4 | . | . | 0.0021 | 60.50 | 0.42 | 0.57 | 0.15 | 0.0095 | 0.10 | 0.0045 | . | 0.11 | Rem |
| IMN WF5 | . | . | 0.0030 | 58.77 | 0.68 | 0.52 | 0.18 | 0.014 | 0.14 | 0.0061 | . | 0.16 | Rem |
| IMN WF6 | . | . | 0.00095 | 59.78 | 0.05 | 0.98 | 0.074 | 0.0020 | 0.026 | . | . | 0.028 | Rem |

NAVAL BRASS

= class, where 1 = CRM and 2 = RM

31X NB: 42 mm Ø x ~15mm

BS: 38 mm Ø x see below

CURM: 50 mm Ø x 10-12mm

IARM 74: 31 mm Ø x 2 or 18mm

| # | Number | Sn | Pb | Zn | Cu | Al | As | Bi | Fe | Mn | Ni | P | S | Sb | Si | Ag | B | Co |
|---|------------|-------|--------|-------|--------|----------|---------|----------|--------|---------|---------|---------|----------|---------|---------|---------|--------|------------|
| 2 | CURM 42.25 | 2.72 | 0.0023 | 39.20 | 57.78 | 0.021 | 0.118 | <0.001 | 0.003 | 0.169 | <0.001 | 0.050 | 0.005 | <0.001 | <0.001 | . | . | . |
| 2 | CURM 42.24 | 2.25 | 0.91 | 33.75 | 62.45 | 0.067 | 0.065 | 0.054 | 0.066 | 0.065 | 0.025 | 0.226 | 0.012 | 0.060 | 0.093 | . | . | . |
| 2 | C42.25 | 2.2 | <0.01 | rem | 58.5 | 0.02 | 0.10 | <0.002 | <0.005 | 0.13 | <0.005 | 0.06 | 0.001 | <0.005 | <0.002 | . | . | . |
| 1 | 31X NB 4J | 2.01 | 0.067 | 32.57 | 63.71 | 0.178 | 0.0062 | 0.104 | 0.235 | 0.0053 | 0.230 | 0.230 | (0.0032) | 0.450 | 0.203 | . | 0.0009 | . |
| 1 | 31X NB 3H | 1.67 | 0.197 | 24.64 | 72.45 | 0.094 | 0.074 | 0.093 | 0.113 | 0.0166 | 0.0299 | 0.150 | (0.006) | 0.265 | 0.145 | . | 0.0026 | . |
| 2 | CURM 42.23 | 1.63 | 0.575 | 22.13 | 74.36 | 0.008 | 0.168 | 0.034 | 0.354 | 0.019 | 0.168 | 0.128 | 0.045 | 0.356 | 0.015 | . | . | . |
| 2 | CURM 42.22 | 1.10 | 1.10 | 26.32 | 70.46 | 0.042 | 0.217 | 0.046 | 0.23 | 0.122 | 0.061 | 0.177 | <0.001 | 0.173 | 0.042 | . | . | . |
| 1 | 31X NB 2H | 1.009 | 0.239 | 35.47 | 62.21 | 0.168 | 0.0970 | 0.100 | 0.112 | 0.151 | 0.0578 | 0.139 | 0.0019 | 0.099 | 0.107 | . | . | . |
| 1 | IARM 76D * | 0.73 | 1.68 | 36.8 | 60.7 | (0.002) | (0.002) | (0.0011) | 0.013 | (0.001) | (0.003) | (0.002) | 0.0014 | (0.004) | (0.004) | (0.001) | . | (0.001) |
| 1 | IARM 74B | 0.70 | 0.017 | 38.9 | 60.4 | 0.003 | <0.01 | . | 0.011 | <0.01 | 0.006 | (0.008) | 0.003 | 0.003 | 0.003 | . | . | . |
| 2 | BS 482A | 0.65 | 0.50 | 38.8 | 60.0 | (0.003) | <0.002 | 0.020 | <0.002 | (0.007) | <0.003 | <0.002 | 0.0012 | (0.002) | . | . | . | ~7 or 19mm |
| 1 | BS 464B * | 0.63 | 0.04 | 38.8 | [60.4] | . | <0.005 | . | 0.04 | . | 0.009 | 0.004 | <0.005 | <0.005 | 0.01 | . | . | ~7 or 19mm |
| 2 | BS 464A | 0.62 | 0.056 | 38.73 | 60.6 | (0.001) | <0.002 | 0.013 | 0.0002 | 0.004 | 0.012 | 0.001 | (0.001) | <0.01 | . | . | . | ~7 or 19mm |
| 2 | CURM 42.21 | 0.60 | 0.259 | 31.61 | 66.78 | 0.003 | <0.003 | 0.013 | 0.119 | <0.001 | 0.120 | 0.087 | 0.034 | 0.25 | 0.15 | . | . | . |
| 2 | BS 464 | 0.61 | 0.034 | 39.0 | Rem. | <0.005 | <0.005 | 0.08 | <0.005 | 0.02 | 0.009 | (0.001) | 0.007 | <0.005 | . | . | . | last 12mm |
| 1 | IARM 75B | 0.59 | 0.63 | 38.0 | 60.63 | (0.005) | (0.004) | (0.001) | 0.06 | (0.003) | 0.02 | 0.003 | (0.001) | (0.004) | (0.003) | . | . | . |
| 2 | C42.21 | 0.54 | 0.23 | rem | 66.1 | 0.005 | <0.005 | 0.012 | 0.06 | <0.005 | 0.096 | 0.081 | 0.007 | 0.19 | 0.081 | . | . | . |
| 1 | 31X NB 1H | 0.535 | 0.504 | 29.73 | 68.35 | (0.0004) | 0.161 | 0.0065 | 0.037 | 0.051 | 0.520 | 0.0223 | 0.0024 | 0.0057 | 0.004 | . | . | (0.0006) |
| 1 | IARM 74A | 0.50 | 0.02 | 38.14 | . | <0.01 | . | . | 0.01 | <0.01 | 0.01 | 0.006 | 0.001 | <0.01 | . | . | . | . |

* Provisional Analysis

CRM NAVAL BRASS SET

available in SET/5 only

40 mm Ø x 25 mm

| Number | Al | Bi | Cu | Fe | Mn | Ni | P | Pb | Sb | Si | Sn | Zn |
|---------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|------|-----|
| IMN WK1 | 0.11 | 0.014 | 59.97 | 0.28 | 0.13 | 0.28 | 0.030 | 0.17 | 0.024 | 0.30 | 0.11 | Rem |
| IMN WK2 | 0.080 | 0.011 | 60.54 | 0.16 | 0.088 | 0.21 | 0.017 | 0.33 | 0.018 | 0.29 | 1.34 | Rem |
| IMN WK3 | 0.045 | 0.0088 | 62.09 | 0.066 | 0.046 | 0.13 | 0.017 | 0.11 | 0.012 | 0.16 | 0.49 | Rem |
| IMN WK4 | 0.013 | 0.0052 | 63.28 | 0.085 | 0.020 | 0.070 | 0.010 | 0.050 | 0.0056 | 0.082 | 1.04 | Rem |
| IMN WK5 | 0.0042 | 0.0011 | 64.92 | 0.0092 | 0.0056 | 0.0055 | 0.0056 | 0.0062 | 0.0027 | 0.0064 | 0.47 | Rem |

CRM NICKEL AND PHOSPHOR BRASS

analysis listed in mass %

| Number | Ni | P | Cu | Zn | Al | Cd | Cr | Fe | Mn | Pb | Sn | Units |
|----------|-------|------|-------|-------|-------|--------|-------|--------|--------|---------|---------|------------------|
| 31X B29A | 4.11 | 3.33 | 67.08 | 24.75 | 0.219 | 0.0144 | 0.062 | 0.144 | 0.0625 | 0.146 | 0.0328 | 40 mm Ø x ~15 mm |
| BAM 387 | 5.020 | . | 75.18 | 19.57 | . | . | . | 0.0617 | 0.0796 | 0.00108 | 0.00301 | 40 mm Ø x 30 mm |

CRM NICKEL BRASS SETS

available in SETS ONLY, as grouped analysis listed in mass % except * which is mg/kg IMN WH, WM: 40 mm Ø x 25 mm IMN WP: 40 mm Ø x 30 mm

| Number | Ni | Zn | Cu | Al | As | Bi | C* | Cd | Co | Fe | Mg | Mn | P | Pb | S | Sb | Si | Sn |
|---------|-------|-------|-------|--------|---------|---------|------|---------|--------|--------|---------|--------|--------|--------|----------|---------|---------|--------|
| IMN WP1 | 5.45 | Rem | 67.15 | 0.020 | 0.0012 | 0.00080 | . | 0.0019 | . | 0.020 | . | 0.0069 | 0.020 | 0.52 | . | 0.0010 | (0.01) | 0.0042 |
| IMN WP2 | 7.79 | Rem | 65.08 | 0.0090 | 0.0049 | 0.0052 | . | 0.0052 | . | 0.12 | . | 0.040 | 0.0067 | 0.82 | . | 0.0052 | (0.009) | 0.11 |
| IMN WP3 | 10.24 | Rem | 63.05 | 0.0020 | 0.011 | 0.012 | . | 0.011 | . | 0.20 | . | 0.15 | 0.0079 | 1.52 | . | 0.012 | (0.03) | 0.18 |
| IMN WP4 | 12.38 | Rem | 60.91 | 0.039 | 0.015 | 0.016 | . | 0.016 | . | 0.31 | . | 0.35 | 0.011 | (2) | . | 0.015 | (0.04) | 0.26 |
| IMN WP5 | 15.63 | Rem | 58.70 | 0.049 | 0.021 | 0.021 | . | 0.026 | . | 0.026 | . | 0.49 | 0.0027 | (1.8) | . | 0.028 | (0.03) | 0.33 |
| IMN WP6 | 4.27 | Rem | 69.37 | . | . | . | . | . | . | . | . | . | . | 2.41 | . | . | . | . |
| IMN WM1 | 5.03 | 25.35 | 69.06 | 0.083 | 0.00026 | 0.011 | 44 | 0.0046 | 0.021 | 0.011 | 0.0054 | 0.38 | 0.0018 | 0.018 | 0.017 | 0.00098 | 0.0026 | 0.0036 |
| IMN WM2 | 6.66 | 24.18 | 68.41 | 0.050 | 0.0030 | 0.014 | 52 | 0.022 | 0.017 | 0.022 | 0.019 | 0.53 | 0.023 | 0.011 | 0.0058 | 0.013 | 0.0067 | 0.011 |
| IMN WM3 | 6.09 | 23.57 | 69.85 | 0.033 | 0.0053 | 0.0055 | 58 | 0.0024 | 0.011 | 0.077 | 0.0042 | 0.19 | 0.0052 | 0.0073 | 0.0073 | 0.0043 | 0.037 | 0.098 |
| IMN WM4 | 5.36 | 23.19 | 71.10 | 0.0080 | 0.0072 | 0.0029 | 72 | 0.0021 | 0.0099 | 0.13 | 0.0027 | 0.011 | 0.0057 | 0.0044 | 0.0058 | 0.0059 | 0.071 | 0.075 |
| IMN WM5 | 4.68 | 25.90 | 68.99 | 0.0012 | 0.0089 | 0.0007 | 90 | 0.00077 | 0.0021 | 0.22 | 0.00056 | 0.0024 | 0.016 | 0.0020 | 0.0030 | 0.0068 | 0.094 | 0.035 |
| IMN WH1 | 5.70 | Rem | 68.16 | . | . | . | (46) | . | 0.0061 | 0.0052 | . | 0.56 | 0.0029 | . | (0.0055) | . | 0.010 | . |
| IMN WH2 | 6.34 | Rem | 69.14 | . | . | . | (58) | . | 0.017 | 0.038 | . | 0.36 | 0.0072 | . | (0.0071) | . | 0.038 | . |
| IMN WH3 | 3.44 | Rem | 70.18 | . | . | . | (70) | . | 0.031 | 0.11 | . | 0.25 | 0.013 | . | (0.011) | . | 0.072 | . |
| IMN WH4 | 4.14 | Rem | 71.15 | . | . | . | (75) | . | 0.048 | 0.13 | . | 0.11 | 0.015 | . | (0.017) | . | 0.12 | . |
| IMN WH5 | 4.89 | Rem | 72.28 | . | . | . | (87) | . | 0.028 | 0.22 | . | 0.011 | 0.017 | . | (0.021) | . | 0.17 | . |

SILICON BRASS

= class, where 1 = CRM and 2 = RM

* Provisional Analysis

| Number | Si | Zn | Cu | Al | Fe | Mn | Ni | P | Pb | Sb | Sn |
|---------------|------|--------|-------|---------|--------|---------|---------|--------|--------|------------|---------|
| 2 CTIF LS2 | 4.91 | 11.60 | 79.60 | 0.156 | 1.022 | 0.220 | 1.110 | 0.064 | 0.886 | 0.0103 | 0.338 |
| 1 31X WSB6E | 3.60 | 0.450 | 94.47 | 0.0311 | 0.088 | 0.900 | 0.1114 | 0.0206 | 0.225 | 0.0022 | 0.071 |
| 1 ERM-EB393a | 3.35 | (20.8) | 75.8 | 0.00021 | 0.0143 | 0.00185 | 0.00297 | 0.0454 | 0.0104 | (0.000093) | 0.00390 |
| 2 CTIF LS3 | 3.3 | 19 | 76 | 0.43 | 0.10 | 0.15 | 0.11 | 0.011 | 0.58 | 0.107 | 0.15 |
| 1 IARM 151B | 3.11 | 12.94 | 84.0 | 0.002 | 0.024 | 0.002 | 0.011 | 0.003 | 0.013 | . | 0.009 |
| 1 IARM 313A | 3.09 | 21.3 | 75.4 | (0.001) | 0.011 | (0.001) | (0.002) | 0.09 | 0.042 | 0.014 | 0.006 |
| 1 31X WSB6F * | 3.09 | 0.051 | (95) | 0.002 | 0.16 | 0.88 | 0.052 | 0.017 | 0.03 | 0.04 | 0.014 |

| Number | Ag | As | B | C | Cd | Co | Cr | S | Zr | Units |
|-------------|--------|----------|----------------|---------|----------|---------|----------|---------------|----------|----------------------|
| CTIF LS2 | . | . | . | . | . | . | . | . | . | 60 mm Ø x 5 mm |
| 31X WSB6E | . | 0.0048 | . | . | 0.0004 | 0.0079 | . | . | . | ~40 mm Ø x ~15 mm |
| ERM-EB393a | . | 0.000134 | Bi: (0.000019) | . | 0.000061 | . | 0.000156 | Se: (0.00047) | . | 40 mm Ø x 30 mm |
| CTIF LS3 | . | . | . | . | . | . | . | . | . | 60 mm Ø x 5 mm |
| IARM 151B | . | . | . | . | . | . | (0.003) | <0.001 | . | 31 mm Ø x 2 or 18 mm |
| IARM 313A | 0.0017 | 0.0010 | 0.0008 | (0.002) | (0.0003) | (0.004) | (0.001) | 0.0016 | (0.0004) | 31 mm Ø x 2 or 18 mm |
| 31X WSB6F * | 0.014 | 0.011 | 0.005 | . | 0.004 | 0.009 | . | . | . | ~40 mm Ø x ~15 mm |

CRM HIGH TENSILE BRASS

| Number | Cu | Zn | Al | Fe | Mn | Si | As | C | Ni | P | Pb | S | Sb | Sn | Units | |
|-------------|-------|-------|--------|--------|------|-------|--------|---------|--------|--------|-------|------------------------|----------|--------|-----------------|-------------------|
| 31X HT31A | 66.67 | 18.19 | 6.70 | 2.90 | 5.27 | 0.041 | 0.0006 | 0.006 | 0.196 | 0.0032 | 0.020 | (0.0003) | (0.0011) | 0.0149 | 50 mm Ø x 18 mm | |
| 31X HT31B * | . | 16.9 | 6.8 | 3.08 | 5.7 | 0.046 | . | B:0.002 | 0.23 | . | 0.03 | * Provisional Analysis | | | 0.082 | ~40 mm Ø x ~15 mm |
| 31X HT37A | 60.33 | 34.69 | 0.0004 | 0.0344 | 2.88 | 1.38 | 0.0011 | 0.003 | 0.0105 | 0.003 | 0.623 | <0.0005 | 0.0007 | 0.0116 | 40 mm Ø x 18 mm | |
| 31X HT38A | 58.77 | 36.66 | 0.960 | 0.0530 | 2.60 | 0.869 | 0.0008 | 0.003 | 0.0242 | 0.0024 | 0.051 | (0.001) | (0.0006) | 0.039 | 50 mm Ø x 18 mm | |

RM BRONZE MUSHROOMS

chill cast typical analysis 60 mm Ø x 5 mm

| Number | Sn | Zn | Cu | Al | As | Fe | Mn | Ni | P | Pb | S | Sb | Si |
|------------|-------|------|-------|---------|--------|---------|----------|---------|---------|--------|-------|----------|---------|
| CTIF B 1 | 15.15 | 0.92 | 82.90 | 0.072 | . | 0.088 | . | 0.063 | 0.037 | 0.202 | 0.030 | 0.444 | 0.055 |
| CTIF B 2 | 13.55 | 0.11 | 85.90 | (0.002) | . | 0.041 | . | (0.003) | 0.17 | 0.0206 | 0.048 | (<0.002) | 0.17 |
| CTIF B 3 | 12.8 | 2.2 | 80.2 | 0.1 | . | 0.2 | 0.20 | 1.5 | 0.45 | 1.6 | 0.04 | 0.2 | 0.07 |
| CTIF B 4 | 11.10 | 1.34 | 83.75 | . | . | 0.021 | . | 0.57 | 0.52 | 2.53 | 0.019 | 0.10 | 0.015 |
| CTIF B 14 | 10.75 | 0.15 | 87.00 | <0.01 | 0.04 | 0.11 | 0.02 | 0.30 | 0.64 | 0.50 | 0.02 | 0.08 | 0.075 |
| CTIF B 13 | 10.05 | 1.09 | 86.35 | 0.016 | 0.065 | 0.250 | 0.046 | 0.50 | 0.210 | 0.99 | 0.070 | 0.243 | 0.085 |
| CTIF B 5 | 9.90 | 0.42 | 85.95 | 0.039 | . | 0.18 | 0.082 | 2.28 | 0.041 | 0.48 | 0.067 | 0.47 | 0.049 |
| CTIF B 30 | 9.80 | 1.05 | 77.45 | 0.063 | . | 0.115 | 0.150 | 0.97 | 0.063 | 10.0 | 0.048 | 0.22 | 0.066 |
| CTIF B 12 | 9.57 | 0.61 | 85.65 | 0.120 | 0.111 | 0.162 | 0.235 | 2.63 | 0.525 | 0.201 | 0.013 | 0.117 | 0.050 |
| CTIF B 11 | 8.04 | 2.10 | 84.75 | . | . | 0.170 | . | 2.0 | 0.057 | 1.93 | 0.09 | 0.70 | 0.14 |
| CTIF B 31 | 7.65 | 0.79 | 78.65 | (0.031) | . | (0.015) | . | 0.489 | . | 11.79 | 0.028 | 0.475 | (0.047) |
| CTIF B 23 | 7.18 | 1.46 | 83.45 | 0.020 | . | (0.040) | . | 0.086 | 0.070 | 7.20 | 0.019 | 0.384 | 0.025 |
| CTIF B 10 | 6.95 | 2.75 | 83.65 | 0.205 | 0.0075 | 0.165 | (0.0045) | 1.01 | 0.014 | 4.07 | 0.050 | 1.14 | . |
| CTIF B 20 | 6.35 | 3.77 | 83.35 | 0.040 | . | 0.165 | . | 0.51 | 0.072 | 5.10 | 0.115 | 0.520 | 0.055 |
| CTIF B 32 | 5.92 | 1.17 | 74.80 | 0.075 | 0.0056 | 0.11 | . | 1.49 | 0.039 | 16.10 | 0.027 | 0.13 | 0.070 |
| CTIF B 21 | 5.13 | 6.17 | 83.05 | 0.13 | . | 0.285 | . | 1.21 | (0.004) | 3.79 | 0.047 | 0.18 | . |
| CTIF B 22 | 3.5 | 4.0 | 83.0 | . | . | <0.10 | . | 2.5 | . | 6.0 | 0.03 | 0.05 | <0.1 |
| CTIF UN 3S | 0.215 | 1.62 | 92.65 | 0.11 | . | 0.30 | 0.073 | 3.45 | . | 0.20 | . | . | 1.24 |
| Number | Sn | Zn | Cu | Al | As | Fe | Mn | Ni | P | Pb | S | Sb | Si |

CRM BRONZE SETS

AVAILABLE IN SETS ONLY, as grouped

IMN: 40 mm Ø x ~30 mm

VS: 40 mm x 40 mm x 25 mm

| Number | Al | Be | Bi | Cu | Fe | Ni | P | Pb | S | Sb | Se | Si | Sn | Zn |
|-------------|---------|------|---------|--------|---------|---------|---------|---------|--------|---------|-----------|-------|---------|---------|
| IMN BM1 | 0.596 | . | 0.538 | Rem | 1.08 | 0.518 | 0.00443 | 0.0241 | 0.0630 | 0.00431 | 0.0125 | 1.40 | 0.00551 | 0.351 |
| IMN BM2 | 0.188 | . | 0.201 | Rem | 0.507 | 1.27 | 0.00973 | 0.0163 | 0.191 | 0.549 | 0.0956 | 0.985 | 0.0162 | 0.0565 |
| IMN BM3 | 0.109 | . | 0.104 | Rem | 0.00679 | 2.18 | 0.0941 | 0.00784 | 0.480 | 0.110 | 0.454 | 0.565 | 0.104 | 0.0198 |
| IMN BM4 | 0.00840 | . | 0.0110 | Rem | 0.102 | 2.93 | 0.213 | 0.00231 | 0.0201 | 0.200 | 0.200 | 0.398 | 0.196 | 0.119 |
| IMN BM5 | 0.00276 | . | 0.00658 | Rem | 0.0107 | 3.67 | 0.578 | 0.00134 | 0.0104 | 0.0152 | (0.00554) | 0.105 | 0.539 | 0.281 |
| VS 3152-85 | (0.19) | 1.71 | . | (97.5) | 0.036 | 0.092 | . | 0.0028 | . | . | . | 0.086 | 0.18 | (0.035) |
| VS 3153a-85 | (0.14) | 1.54 | . | (97.3) | 0.23 | 0.25 | . | 0.0035 | . | . | . | 0.14 | . | . |
| VS 3154-85 | (0.064) | 2.44 | . | (96.7) | 0.28 | 0.23 | . | 0.0023 | . | . | . | 0.12 | 0.033 | 0.041 |
| VS 3155-85 | (0.027) | 2.64 | . | (96.2) | 0.079 | 0.35 | . | 0.0060 | . | . | . | 0.23 | 0.083 | 0.13 |
| VS 3156-85 | (0.054) | 3.2 | . | (95.4) | 0.14 | (0.081) | . | 0.011 | . | . | . | 0.30 | 0.061 | 0.23 |

BRONZE

| Number | Cu | Fe | Ni | P | Pb | Sn | Zn | method | Units |
|-----------|------|--------|----------|--------|-------|-------|--------|---------|-----------------------|
| SRM 1115 | 87.9 | 0.13 | 0.074 | 0.005 | 0.013 | 0.10 | 11.7 | wrought | 31 mm Ø x 19 mm |
| SRM C1115 | 87.9 | 0.13 | 0.074 | 0.005 | 0.013 | 0.10 | 11.7 | cast | 31 mm x 31 mm x 19 mm |
| 32X CSN1A | . | 0.0020 | (0.0001) | 0.0007 | . | 0.306 | 0.0039 | wrought | ~20 mm Ø x ~22 mm |
| SRM 1116 | 90.3 | 0.046 | 0.048 | 0.008 | 0.042 | 0.04 | 9.4 | wrought | 31 mm Ø x 19 mm |
| SRM 1117 | 93.0 | 0.014 | 0.020 | 0.002 | 0.069 | 0.02 | 6.8 | wrought | 31 mm Ø x 19 mm |
| SRM C1117 | 93.0 | 0.014 | 0.020 | 0.002 | 0.069 | 0.02 | 6.8 | cast | 31 mm x 31 mm x 19 mm |

CRM ALUMINUM BRONZE SETS

available in SETS only, as grouped analysis listed in mass % except * which is mg/kg 40 mm Ø x ~25-30 mm

| Number | Al | As | Bi | Cd | Co | Cr* | Fe | Mg* | Mn | Ni | P | Pb | S | Sb | Si | Sn | Zn |
|---------|-------|---------|---------|---------|--------|------|---------|-----|---------|---------|----------|-----------|--------|---------|-----------|----------|--------|
| IMN BF1 | 10.90 | 0.061 | 0.00042 | . | . | . | (6.2) | . | 0.0059 | 2.49 | (0.012) | 0.23 | . | (0.002) | 0.26 | 0.011 | 0.57 |
| IMN BF2 | 9.96 | 0.050 | 0.0025 | . | . | . | (5.4) | . | 0.12 | 3.54 | 0.053 | 0.15 | . | (0.013) | 0.25 | 0.081 | 0.40 |
| IMN BF3 | 9.58 | 0.038 | 0.0039 | . | . | . | 4.50 | . | 0.28 | 4.43 | 0.098 | 0.111 | . | 0.028 | 0.20 | 0.17 | 0.27 |
| IMN BF4 | 9.12 | 0.022 | 0.0057 | . | . | . | 3.25 | . | 0.39 | 5.24 | 0.13 | 0.059 | . | 0.037 | 0.097 | 0.25 | 0.10 |
| IMN BF5 | 8.35 | 0.0039 | 0.010 | . | . | . | 2.44 | . | 0.50 | 6.03 | 0.16 | 0.014 | . | 0.048 | 0.028 | 0.35 | 0.18 |
| IMN BP1 | 8.935 | 0.00094 | 0.00053 | 0.00054 | . | 3.7 | 0.00305 | . | 0.00535 | 0.243 | 0.00055 | 0.00055 | . | 0.00052 | (0.00544) | 0.00043 | 0.0100 |
| IMN BP2 | 6.136 | 0.00215 | 0.00222 | 0.00214 | . | 26.7 | 0.0184 | . | 0.0189 | 1.032 | 0.00208 | 0.00238 | . | 0.00468 | 0.0220 | 0.00199 | 0.024 |
| IMN BP3 | 7.120 | 0.00980 | 0.0102 | 0.00928 | . | 104 | 0.0743 | . | 0.152 | 1.850 | 0.00661 | 0.0103 | . | 0.0108 | 0.0804 | 0.0106 | 0.176 |
| IMN BP4 | 4.632 | 0.0238 | 0.0207 | 0.0226 | . | 217 | 0.0131 | . | 0.304 | 2.522 | 0.0238 | 0.0229 | . | 0.0215 | 0.183 | 0.0229 | 0.343 |
| IMN BP5 | 3.769 | 0.0361 | 0.0349 | 0.0356 | . | 374 | 0.200 | . | 0.411 | 3.528 | 0.0189 | 0.0347 | . | 0.0356 | 0.266 | 0.0336 | 0.459 |
| IMN BO1 | 3.16 | 0.00033 | 0.00030 | 0.00035 | . | 32.7 | 0.0158 | . | 0.0167 | 0.00517 | (0.0004) | 0.00384 | . | 0.00035 | (0.00471) | 2.54 | 7.10 |
| IMN BO2 | 4.03 | 0.00199 | 0.00197 | 0.00182 | . | 3.7 | 0.00569 | . | 0.00102 | 0.00204 | 0.00227 | (0.00214) | . | 0.00226 | 0.00979 | 1.83 | 6.26 |
| IMN BO3 | 4.67 | 0.00662 | 0.00660 | 0.00570 | . | 54.8 | 0.0752 | . | 0.00884 | 0.0683 | 0.00550 | 0.0537 | . | 0.00568 | 0.0552 | 1.17 | 5.07 |
| IMN BO4 | 6.15 | 0.0115 | 0.0107 | 0.00881 | . | 91 | 0.137 | . | 0.00612 | 0.111 | 0.0100 | 0.102 | . | 0.0104 | 0.0951 | 0.704 | 4.28 |
| IMN BO5 | 7.02 | 0.0161 | 0.0152 | 0.0134 | . | 145 | 0.218 | . | 0.0772 | 0.0355 | 0.0155 | 0.0299 | . | 0.0152 | 0.0135 | 0.117 | 3.08 |
| IMN BJ1 | 2.88 | 0.011 | 0.013 | 0.016 | 0.027 | . | 0.011 | 58 | 0.60 | 6.97 | 0.0022 | 0.0025 | 0.021 | 0.0012 | (0.11) | (0.11) | 0.020 |
| IMN BJ2 | 2.46 | 0.0089 | 0.0095 | 0.011 | 0.020 | . | 0.038 | 98 | 0.42 | 6.47 | 0.011 | 0.0043 | 0.014 | 0.0030 | (0.091) | (0.080) | 0.038 |
| IMN BJ3 | 1.97 | 0.0072 | 0.0071 | 0.0076 | 0.014 | . | 0.12 | 65 | 0.21 | 5.87 | 0.014 | 0.0081 | 0.0082 | 0.0056 | (0.047) | (0.049) | 0.22 |
| IMN BJ4 | 1.50 | 0.0031 | 0.0042 | 0.0048 | 0.0076 | . | 0.20 | 35 | 0.013 | 5.49 | 0.013 | 0.010 | 0.0049 | 0.0088 | (0.015) | (0.014) | 0.36 |
| IMN BJ5 | 1.09 | 0.0018 | 0.0013 | 0.00075 | 0.0024 | . | 0.28 | 17 | 0.0030 | 5.00 | 0.019 | 0.017 | 0.0023 | 0.010 | (0.0071) | (0.0034) | 0.51 |

ALUMINUM BRONZE - LOW NICKEL

= class, where 1 = CRM and 2 = RM

| # | Number | Al | Cu | As | Cr | Fe | Mg | Mn | Ni | P | Pb | Si | Sn | Zn |
|---|----------------|-------|--------|---------|---------|-------|--------|--------|--------|---------|----------|--------|--------|--------|
| 1 | 32X ALB9C | 13.52 | 81.64 | 0.0163 | 0.0206 | 3.12 | 0.090 | 0.159 | 0.628 | 0.096 | 0.267 | 0.235 | 0.0601 | 0.142 |
| 1 | IARM 93B | 10.33 | 85.4 | <0.01 | (0.007) | 3.87 | . | 0.024 | 0.088 | (0.002) | 0.012 | 0.024 | 0.009 | 0.17 |
| 2 | BS 954A | 10.17 | 85.64 | (0.006) | . | 3.50 | . | 0.10 | 0.20 | 0.012 | 0.016 | 0.029 | 0.033 | 0.30 |
| 1 | 32X CA 7A | 9.37 | 88.06 | . | 0.0028 | 2.09 | 0.0004 | 0.151 | 0.234 | . | (0.004) | 0.017 | 0.0172 | 0.006 |
| 2 | BS 623 | 9.24 | (88.1) | <0.01 | . | 2.25 | . | 0.16 | 0.10 | 0.013 | <0.01 | 0.046 | 0.01 | 0.05 |
| 1 | IARM 79C | 9.20 | 87.6 | 0.003 | (0.002) | 2.28 | . | 0.20 | 0.55 | 0.006 | <0.005 | 0.033 | 0.010 | 0.014 |
| 1 | IARM 79B | 9.19 | 88.4 | . | (0.003) | 2.13 | . | 0.16 | 0.075 | 0.005 | (0.003) | 0.019 | 0.017 | 0.013 |
| 2 | BS 623A | 9.12 | 88.13 | (0.006) | . | 2.19 | . | 0.273 | 0.146 | <0.002 | 0.001 | 0.014 | 0.002 | 0.008 |
| 2 | CURM 51.14 | 8.42 | 88.57 | 0.44 | . | 0.72 | . | 0.55 | 0.219 | 0.012 | 0.003 | 0.286 | 0.113 | 0.656 |
| 2 | CURM 51.13 | 7.30 | 88.79 | 0.215 | . | 1.81 | . | 0.898 | 0.057 | 0.022 | 0.104 | 0.174 | 0.270 | 0.335 |
| 1 | BS 642B | 7.17 | 89.9 | 0.0015 | 0.0014 | 0.285 | 0.0032 | 0.069 | 0.222 | 0.004 | 0.0152 | 2.15 | 0.0056 | 0.128 |
| 1 | BS 642C | 7.13 | 90.4 | 0.0008 | 0.0009 | 0.11 | 0.0014 | 0.0148 | 0.0363 | 0.0040 | 0.0109 | 2.20 | 0.0061 | 0.039 |
| 2 | C51.13 | 6.93 | Rem | 0.21 | . | 2.05 | . | 0.77 | 0.053 | 0.021 | 0.12 | 0.16 | 0.19 | 0.30 |
| 1 | 32X 61400A | 6.81 | 89.99 | . | . | 2.74 | 0.0050 | 0.082 | 0.0242 | 0.0008 | (0.0007) | 0.0124 | 0.301 | 0.060 |
| 1 | BS 642D * | 6.8 | [91.2] | 0.004 | <0.005 | 0.16 | <0.05 | 0.018 | 0.05 | 0.001 | 0.004 | 1.8 | 0.024 | 0.10 |
| 1 | IARM 81B | 6.70 | 91.2 | 0.058 | 0.002 | 0.047 | . | 0.012 | 0.003 | 0.004 | 0.006 | 1.84 | 0.008 | 0.176 |
| 2 | CURM 51.12 | 6.36 | 88.29 | 0.111 | . | 2.87 | . | 1.33 | 0.112 | <0.001 | 0.219 | 0.005 | 0.196 | 0.45 |
| 1 | 32X CA12A | 6.14 | 90.48 | . | 0.0008 | 0.657 | 0.0005 | 0.0290 | 0.088 | . | (0.0017) | 2.57 | 0.0157 | 0.0405 |
| 2 | C51.12 | 6.06 | Rem | 0.11 | . | 2.90 | . | 1.25 | 0.11 | <0.005 | 0.25 | <0.01 | 0.18 | 0.42 |
| 2 | CURM 51.11 | 5.27 | 93.95 | <0.001 | . | 0.060 | . | <0.001 | 0.012 | 0.035 | 0.33 | 0.159 | 0.027 | 0.111 |

| Number | Ag | Be | C | Co | N | O | S | Sb | Zr | Units |
|----------------|---------|--------|---------|----------|------------------------|---------|---------|----------|-----------|------------------------------------|
| 32X ALB9C | 0.0417 | . | . | 0.0027 | . | . | . | . | Te:0.0058 | ~40 mm Ø x ~15 mm |
| IARM 93B | (0.004) | . | 0.007 | 0.006 | . | . | 0.002 | (0.012) | . | 31 mm Ø x 2 or 18 mm |
| BS 954A | . | . | 0.004 | . | . | . | <0.0001 | 0.001 | . | 38 mm Ø x 12 mm last |
| 32X CA 7A | 0.0009 | . | 0.0028 | 0.0003 | . | . | . | . | . | 42 mm Ø x 18 mm |
| BS 623 | . | . | (0.002) | . | . | . | (0.001) | <0.01 | . | 37 mm Ø x 12 mm last |
| IARM 79C | <0.005 | . | 0.003 | <0.005 | . | . | <0.001 | <0.005 | . | 31 mm Ø x 2 or 18 mm |
| IARM 79B | 0.002 | . | 0.002 | (0.002) | . | . | (0.001) | . | . | 31 mm Ø x 2 or 18 mm |
| BS 623A | . | . | (0.002) | . | . | . | <0.0005 | <0.002 | . | 38 mm Ø x ~7 or 19+ mm |
| CURM 51.14 | . | . | . | . | . | . | . | . | . | 50 mm Ø x 10 - 12 mm |
| CURM 51.13 | . | . | . | . | . | . | . | . | . | 50 mm Ø x 10 - 12 mm |
| BS 642B | . | <0.005 | 0.0013 | <0.005 | <0.0005 | <0.0005 | <0.0005 | 0.0004 | <0.0005 | 38 mm Ø x ~7 or 19 mm 17025 |
| BS 642C | . | <0.005 | <0.005 | <0.005 | <0.005 | <0.0005 | <0.005 | <0.0005 | <0.0005 | 38 mm Ø x ~7 or 19 mm 17025 |
| C51.13 | . | . | . | . | . | . | . | . | . | 50 mm Ø x 10 - 12 mm |
| 32X 61400A | 0.0010 | . | . | . | . | . | . | (0.0004) | . | ~45 mm Ø x ~15 mm |
| BS 642D * | <0.05 | . | 0.001 | <0.05 | * Provisional Analysis | . | <0.005 | 0.005 | . | 38 mm Ø x ~7 or 19+ mm |
| IARM 81B | (0.004) | . | 0.002 | . | . | . | <0.001 | 0.003 | . | 31 mm Ø x 2 mm |
| CURM 51.12 | . | . | . | . | . | . | . | . | . | 50 mm Ø x 10 - 12 mm |
| 32X CA12A | 0.0010 | . | (0.002) | (0.0003) | . | . | . | . | . | 42 mm Ø x 18 mm |
| C51.12 | . | . | . | . | . | . | . | . | . | 50 mm Ø x 10 - 12 mm |
| CURM 51.11 | . | . | . | . | . | . | . | . | . | 50 mm Ø x 10 - 12 mm |

Need a larger size?
Most BS items are
available in any height.

ALUMINUM BRONZE - HIGH NICKEL

= class, where 1 = CRM and 2 = RM

| # | Number | Al | Cu | As | Cr | Fe | Mg | Mn | Ni | P | Pb | Si | Sn | Zn |
|---|----------------|-------|-------|----------|---------|-------|---------|-------|-------|---------|----------|--------|---------|--------|
| 1 | 32X ALB10B | 12.11 | 73.64 | 0.0194 | 0.0152 | 3.63 | 0.0122 | 1.626 | 7.21 | 0.069 | 0.152 | 0.158 | 0.201 | 0.961 |
| 1 | IARM 94B | 10.8 | 80.6 | <0.01 | 0.017 | 3.99 | . | 0.071 | 4.31 | 0.011 | 0.004 | 0.028 | (0.003) | 0.14 |
| 2 | CURM 52.52 | 10.69 | 79.26 | . | 0.004 | 6.02 | 0.007 | 0.145 | 3.56 | . | 0.074 | 0.011 | 0.044 | 0.094 |
| 2 | BS 955C | 10.68 | 80.6 | (<0.002) | . | 4.04 | . | 0.06 | 4.31 | 0.012 | 0.003 | 0.025 | 0.003 | 0.15 |
| 1 | IARM 204A | 10.55 | 83.3 | (<0.01) | 0.008 | 3.87 | . | 0.052 | 1.95 | 0.007 | 0.004 | 0.034 | 0.005 | 0.22 |
| 1 | 32X ALB2L | 10.48 | 78.50 | 0.0062 | 0.052 | 4.628 | 0.0088 | 0.401 | 4.515 | 0.031 | 0.0685 | 0.198 | 0.0806 | 0.671 |
| 1 | 32X ALB3S | 10.43 | 80.01 | 0.0213 | 0.0392 | 3.720 | 0.0659 | 0.243 | 3.51 | 0.0345 | 0.117 | 0.155 | 0.1209 | 1.313 |
| 2 | BS 955B | 10.30 | 81.5 | (0.002) | . | 3.79 | . | 0.12 | 4.11 | 0.017 | 0.051 | 0.05 | 0.029 | 0.052 |
| 2 | BS 954C | 10.21 | 83.9 | (0.006) | . | 3.9 | . | 0.29 | 1.38 | 0.011 | 0.050 | 0.07 | 0.08 | 0.09 |
| 2 | BS 954B | 10.20 | 83.9 | (0.005) | . | 3.90 | . | 0.27 | 1.38 | 0.012 | 0.047 | 0.07 | 0.07 | 0.10 |
| 2 | BS 630A | 10.05 | 81.0 | (0.002) | . | 3.73 | . | 0.11 | 4.81 | <0.01 | 0.0069 | 0.037 | 0.019 | 0.17 |
| 2 | HRT CU2001 | 10.05 | 79.09 | . | . | 4.79 | . | 0.36 | 4.94 | 0.011 | 0.015 | 0.08 | 0.018 | 0.17 |
| 2 | C52.51 | 10.0 | Rem | . | <0.01 | 4.3 | <0.01 | <0.01 | 5.1 | . | <0.01 | <0.01 | <0.01 | 0.02 |
| 2 | HRT CU2009 | 9.93 | 78.88 | . | . | 3.73 | . | 0.29 | 6.22 | 0.010 | 0.037 | 0.19 | 0.020 | 0.54 |
| 1 | IARM 334B | 9.91 | 80.8 | (0.003) | (0.004) | 3.7 | (0.001) | 0.60 | 4.70 | 0.005 | 0.006 | 0.075 | 0.019 | 0.122 |
| 1 | BS 630C | 9.90 | 80.7 | 0.0007 | 0.0030 | 3.82 | 0.0011 | 0.325 | 4.82 | 0.0043 | 0.0093 | 0.064 | 0.0152 | 0.234 |
| 1 | 32X CA 1A | 9.79 | 80.03 | . | 0.0049 | 4.63 | 0.0003 | 0.296 | 4.94 | 0.003 | 0.007 | 0.090 | 0.0180 | 0.162 |
| 1 | BS 630B | 9.78 | 80.8 | 0.0007 | 0.0017 | 3.90 | 0.0009 | 0.281 | 4.88 | 0.0028 | 0.0056 | 0.0166 | 0.0289 | 0.254 |
| 1 | IARM 334A | 9.76 | 80.7 | (0.004) | (0.01) | 3.82 | (0.001) | 0.69 | 4.77 | (0.005) | 0.010 | 0.073 | 0.025 | 0.110 |
| 1 | 32X ALB 6K | 9.69 | 80.77 | 0.0116 | (0.1) | 2.71 | 0.0104 | 0.787 | 5.42 | (0.006) | 0.0749 | 0.073 | 0.120 | 0.126 |
| 2 | C52.55 | 9.3 | Rem | . | 0.05 | 4.9 | 0.13 | 1.1 | 4.6 | . | 0.14 | 0.03 | 0.03 | 0.10 |
| 2 | BS CC954 | 9.28 | 84.0 | 0.003 | . | 3.61 | . | 0.353 | 1.12 | 0.013 | 0.13 | 0.092 | 0.061 | 1.30 |
| 1 | 32X CA23A | 9.19 | 81.05 | . | 0.0018 | 3.63 | 0.0003 | 1.298 | 4.71 | 0.0011 | (0.0026) | 0.026 | 0.0164 | 0.031 |
| 1 | 32X CA31A | 8.95 | 82.24 | . | 0.0026 | 4.06 | 0.0008 | 0.336 | 4.28 | (0.003) | (0.0024) | 0.036 | 0.0037 | 0.041 |
| 2 | C52.56 | 8.9 | Rem | . | 0.14 | 4.6 | 0.09 | 0.74 | 5.6 | . | 0.17 | 0.15 | 0.11 | 0.28 |
| 1 | IARM 235A | 8.9 | 81.2 | <0.005 | 0.01 | 4.07 | . | 1.17 | 4.44 | 0.012 | 0.012 | 0.061 | 0.018 | 0.083 |
| 1 | 32X ALB 11B | 8.85 | 80.38 | . | . | 3.99 | 0.072 | 1.290 | 4.44 | 0.0249 | 0.0316 | 0.015 | 0.062 | 0.508 |
| 1 | 32X ALB 1P | 8.83 | 81.85 | 0.0083 | 0.0052 | 3.11 | 0.0092 | 0.057 | 5.74 | 0.0145 | 0.207 | 0.106 | 0.0314 | 0.0228 |
| 1 | 32X ALB 11A | 8.80 | 80.58 | . | . | 3.81 | 0.075 | 1.13 | 4.33 | 0.045 | 0.118 | 0.069 | 0.0289 | 0.576 |
| 1 | 32X ALB 12A | 8.29 | 82.90 | . | . | 1.094 | 0.0013 | 0.958 | 6.33 | 0.0101 | 0.0018 | 0.0202 | 0.310 | 0.0625 |
| 1 | 32X ALB 4H | 7.87 | 79.61 | 0.0130 | 0.022 | 3.55 | 0.153 | 1.028 | 7.03 | 0.036 | 0.120 | 0.252 | 0.085 | 0.264 |
| 2 | CURM 52.54 | 7.85 | 81.59 | . | <0.005 | 3.31 | <0.005 | 1.20 | 5.40 | . | 0.086 | 0.022 | 0.135 | 0.39 |
| 1 | 32X ALB 13A | 7.09 | 84.96 | . | . | 1.171 | . | 5.39 | 1.381 | 0.009 | (0.0009) | 0.086 | 0.0072 | 0.0194 |
| 1 | 32X ALB 5J | 6.91 | 84.61 | 0.064 | 0.0056 | 2.22 | 0.0176 | 1.21 | 4.14 | 0.048 | 0.093 | 0.086 | 0.062 | 0.487 |
| 1 | 32X ALB 8E | 6.38 | 77.17 | 0.145 | 0.36 | 5.54 | 0.015 | 1.562 | 6.68 | 0.171 | 0.071 | 0.603 | 0.312 | 0.352 |
| 1 | 32X ALB 7C | 4.01 | 84.40 | 0.056 | 0.061 | 4.82 | 0.0039 | 0.383 | 4.96 | 0.057 | 0.029 | 0.399 | 0.30 | 0.527 |

| Number | Ag | Be | Bi | C | Co | S | Sb | Se | Units |
|----------------|---------|-----------|---------|----------|----------|-----------|-----------|-----------|-------------------------------------|
| 32X ALB10B | 0.0144 | . | . | . | 0.0984 | . | . | Te:0.0108 | ~40 mm Ø x ~15 mm |
| IARM 94B | 0.017 | . | . | (0.006) | 0.011 | 0.002 | (0.011) | . | 31 mm Ø x 2 or 18 mm |
| CURM 52.52 | . | . | . | . | . | . | . | . | 50 mm Ø x 10 - 12 mm |
| BS 955C | 0.014 | . | . | . | . | . | (<0.002) | . | 38 mm Ø x ~7 or 19+ mm |
| IARM 204A | 0.009 | . | . | 0.006 | 0.008 | (0.002) | (<0.01) | . | 31 mm Ø x 2 or 18 mm |
| 32X ALB2L | 0.018 | . | . | . | 0.198 | . | . | Nb:0.070 | ~40 mm Ø x ~15 mm |
| 32X ALB3S | 0.0272 | . | . | . | 0.0760 | . | . | Nb:0.018 | ~40 mm Ø x ~15 mm |
| BS 955B | (0.009) | . | . | . | . | 0.002 | (0.002) | . | 38 mm Ø x 12 mm |
| BS 954C | . | . | . | (0.004) | . | (<0.0005) | <0.003 | . | 38 mm Ø x ~7 or 19+ mm |
| BS 954B | . | . | . | (0.005) | . | (<0.0005) | (0.001) | . | 38 mm Ø x ~7 or 19+ mm |
| BS 630A | . | . | . | 0.005 | . | (0.001) | <0.001 | last | 38 mm Ø x 12 mm |
| HRT CU2001 | . | . | . | . | . | 0.003 | . | . | 40 mm Ø x 20 mm |
| C52.51 | . | . | . | . | . | . | . | . | 50 mm Ø x 10 - 12 mm |
| HRT CU2009 | . | . | . | . | . | . | . | . | 40 mm Ø x 20 mm |
| IARM 334B | 0.0013 | (0.001) | (0.001) | 0.005 | (0.003) | 0.0008 | (0.004) | (0.004) | 31 mm Ø x 2 or 18 mm |
| BS 630C | . | (<0.0005) | . | 0.0060 | 0.0019 | (<0.0005) | 0.0003 | . | 38 mm Ø x ~7 or 19 mm+ 17025 |
| 32X CA 1A | 0.0012 | . | . | (0.007) | . | . | . | . | 42 mm Ø x 18 mm |
| BS 630B | . | (<0.0005) | . | 0.0067 | 0.0017 | 0.0013 | (<0.0005) | . | 38 mm Ø x ~7 or 19 mm+ 17025 |
| IARM 334A | (0.001) | (0.001) | (0.001) | 0.0058 | (0.003) | 0.0007 | 0.004 | . | 31 mm Ø x 2 or 18 mm |
| 32X ALB 6K | 0.0082 | . | . | . | 0.139 | . | . | . | ~40 mm Ø x ~15 mm |
| C52.55 | . | . | . | . | . | . | . | . | 50 mm Ø x 10 - 12 mm |
| BS CC954 | . | . | . | (0.007) | . | (0.002) | 0.004 | . | 32 mm Ø x 17 mm |
| 32X CA23A | 0.0008 | . | . | (0.0050) | (0.0036) | . | . | . | 50 mm Ø x 18 mm |
| 32X CA31A | 0.0008 | . | . | 0.006 | 0.0029 | . | . | . | 42 mm Ø x 18 mm |
| C52.56 | . | . | . | . | . | . | . | . | 50 mm Ø x 10 - 12 mm |
| IARM 235A | <0.005 | . | . | 0.009 | 0.01 | 0.002 | (0.004) | . | 31 mm Ø x 2 or 18 mm |
| 32X ALB 11B | . | 0.064 | 0.082 | . | 0.0180 | . | 0.203 | 0.007 | 40 mm Ø x 15 mm |
| 32X ALB 1P | . | . | . | . | . | . | . | . | 42 mm Ø x 18 mm |
| 32X ALB 11A | . | 0.0194 | 0.120 | . | 0.089 | . | 0.093 | 0.006 | 40 mm Ø x ~15 mm |
| 32X ALB 12A | 0.044 | . | . | . | 0.0056 | . | . | (0.0007) | ~41 mm Ø x ~15 mm |
| 32X ALB 4H | . | . | . | . | . | . | . | . | 42 mm Ø x 18 mm |
| CURM 52.54 | . | . | . | . | . | . | . | . | 50 mm Ø x 10 - 12 mm |
| 32X ALB 13A | . | . | . | . | 0.0011 | . | . | (0.0007) | ~35 mm Ø x ~15 mm |
| 32X ALB 5J | . | . | . | . | 0.0307 | . | . | . | 42 mm Ø x 18 mm last of stock |
| 32X ALB 8E | 0.0099 | . | . | . | 0.554 | . | 0.024 | . | ~40 mm Ø x ~15 mm |
| 32X ALB 7C | . | . | . | . | . | . | . | . | 42 mm Ø x 18 mm |

Need a larger size?
Most BS items are
available in any height.

RM ALUMINUM BRONZE MUSHROOMS

| chill cast | | typical analysis | | | | | | | | | | | 60 mm Ø x 5 mm | |
|-------------|-------|------------------|------|-------|-------|--------|-------|--------|-------|--------|--------|-------|----------------|--|
| Number | Al | Cu | Fe | Mn | Ni | Pb | Si | Sn | Zn | Bi | Cd | Cr | Mg | |
| CTIF CA 36 | 12.60 | 77.25 | 2.93 | 0.131 | 6.33 | 0.0154 | 0.113 | 0.201 | 0.244 | 0.058 | . | 0.041 | 0.130 | |
| CTIF 2158-W | 11.95 | 85.00 | 2.53 | 0.26 | 0.10 | <0.005 | 0.015 | <0.01 | <0.01 | . | . | . | . | |
| CTIF 4065-P | 11.85 | 81.20 | 3.40 | 0.075 | 3.18 | 0.03 | 0.034 | 0.18 | 0.03 | . | . | . | . | |
| CTIF CA 35 | 11.4 | 75.6 | 6.1 | 1.6 | 3.80 | 0.10 | 0.25 | 0.30 | 0.55 | . | . | . | . | |
| CTIF 2154-V | 11.25 | 85.00 | 3.05 | 0.12 | 0.41 | <0.005 | 0.015 | <0.01 | <0.01 | . | . | . | . | |
| CTIF CA 13 | 11.20 | 82.45 | 3.82 | 1.22 | 0.50 | 0.0230 | 0.11 | (0.01) | 0.65 | . | . | . | . | |
| CTIF CA 3 | 10.9 | 86.5 | 0.80 | 0.06 | 0.80 | 0.15 | 0.08 | 0.20 | 0.30 | . | . | . | . | |
| CTIF CA 21 | 10.82 | 81.9 | 3.45 | 0.30 | 3.09 | 0.05 | 0.07 | 0.07 | 0.100 | . | 0.0095 | . | . | |
| CTIF CA11 | 10.54 | 84.45 | 1.27 | 0.779 | 1.95 | 0.109 | 0.254 | 0.258 | 0.211 | . | . | . | 0.125 | |
| CTIF CA 22 | 10.45 | 80.50 | 2.51 | 0.745 | 4.54 | 0.0243 | 0.32 | 0.30 | 0.605 | . | . | . | . | |
| CTIF 3011-G | 10.35 | 84.80 | 1.98 | 0.165 | 2.00 | 0.10 | 0.16 | 0.125 | 0.25 | . | . | . | . | |
| CTIF CA 27 | 10.25 | 81.1 | 2.81 | 1.195 | 3.88 | 0.11 | 0.127 | 0.054 | 0.428 | . | 0.012 | . | . | |
| CTIF CA 10 | 10.15 | 80.65 | 4.55 | 0.333 | 3.39 | 0.16 | 0.46 | 0.16 | 0.067 | . | . | . | . | |
| CTIF 3299-J | 10.10 | 87.60 | 0.38 | 1.12 | 0.21 | 0.110 | 0.136 | 0.106 | 0.19 | . | . | . | . | |
| CTIF 3297-Y | 10.00 | 87.45 | 1.88 | 0.03 | . | 0.11 | 0.15 | 0.10 | 0.27 | . | . | . | . | |
| CTIF CA37 | 9.84 | 76.79 | 6.85 | 0.752 | 4.98 | 0.0503 | 0.040 | 0.147 | 0.364 | 0.0118 | . | 0.085 | 0.077 | |
| CTIF 4149-G | 9.84 | 84.95 | 2.00 | 0.21 | 1.96 | 0.15 | 0.18 | 0.34 | 0.37 | . | . | . | . | |
| CTIF 2152-S | 9.78 | 85.05 | 3.99 | 0.42 | 0.68 | <0.005 | 0.015 | . | <0.01 | . | . | . | . | |
| CTIF 2151-R | 9.43 | 84.75 | 4.48 | 0.73 | 0.56 | <0.005 | 0.015 | <0.01 | <0.01 | . | . | . | . | |
| CTIF 3296-L | 9.40 | 88.55 | 0.07 | 0.37 | 0.41 | 0.30 | 0.20 | 0.06 | 0.62 | . | . | . | . | |
| CTIF CA 31 | 9.15 | 76.5 | 3.18 | 3.27 | 7.51 | 0.020 | 0.064 | 0.063 | 0.145 | . | . | . | 0.02 | |
| CTIF CA 26 | 9.10 | 81.25 | 4.36 | 0.188 | 4.87 | 0.058 | 0.035 | 0.005 | 0.038 | . | 0.034 | . | . | |
| CTIF 3300-M | 8.73 | 89.5 | 0.45 | 0.165 | 0.205 | 0.205 | 0.415 | 0.205 | 0.085 | . | . | . | . | |
| CTIF 3301-Z | 8.10 | 87.30 | 4.00 | 0.26 | 0.125 | 0.032 | 0.057 | 0.028 | 0.06 | . | . | . | . | |
| CTIF 2794-H | 8.0 | 90.3 | 0.82 | <0.01 | 0.69 | <0.01 | 0.048 | 0.105 | <0.01 | . | . | . | . | |
| CTIF CA 20 | 8.00 | 87.15 | 0.79 | 1.85 | 1.18 | 0.18 | 0.17 | 0.19 | 0.41 | . | 0.05 | . | . | |
| CTIF CA 12 | 8.0 | 84.1 | 2.77 | 3.09 | 1.385 | 0.047 | 0.058 | 0.036 | 0.45 | . | . | . | . | |
| CTIF CA 25 | 7.97 | 79.12 | 6.10 | 0.51 | 5.74 | 0.03 | 0.084 | 0.177 | 0.252 | . | . | . | . | |
| CTIF CA 30 | 7.55 | 81.6 | 5.2 | 2.05 | 3.10 | 0.142 | 0.15 | 0.099 | 0.066 | . | . | . | . | |
| CTIF 3018-F | 7.25 | 81.90 | 4.45 | 1.57 | 4.50 | 0.02 | 0.085 | 0.06 | 0.06 | . | . | . | . | |
| CTIF 3610-Q | 7.10 | 82.32 | 3.98 | 0.045 | 5.40 | 0.23 | 0.065 | 0.25 | 0.51 | . | 0.090 | . | . | |
| Number | Al | Cu | Fe | Mn | Ni | Pb | Si | Sn | Zn | Bi | Cd | Cr | Mg | |

CRM BISMUTH BRONZE

31 mm Ø x 2 mm

| Number | Ag | Al | As | Bi | Co | Cr | Cu | Fe | Mn | Ni | P | Pb | S | Sb | Si | Sn | Zn |
|-----------|-------|-------|--------|-----|---------|---------|------|-------|---------|-------|------|-------|-------|-------|-------|------|-------|
| IARM 211A | 0.005 | 0.002 | (0.01) | 5.0 | (0.001) | (0.002) | 88.4 | 0.004 | (0.003) | 0.003 | 0.19 | 0.014 | 0.002 | 0.057 | 0.003 | 6.23 | 0.006 |

MANGANESE BRONZE

= class, 1=CRM and 2=RM * Provisional Analysis BS 675B, 863B, 675A: 38 Ø x ~7 or 19+ mm BS 675: 38 Ø x 12 mm IARM: 31 Ø x 2 or 18 mm

| # | Number | Mn | Al | Fe | Sn | Zn | Cu | As | C | Co | Cr | Ni | P | Pb | S | Sb | Si |
|---|------------|-------|----------|------|-------|------|--------|---------|----------|----------|----------|--------|--------|--------|----------|---------|---------|
| 1 | BS 863B | 2.97 | 5.25 | 2.84 | 0.033 | 26.1 | [62.4] | 0.0004 | 0.0028 | 0.0009 | 0.0042 | 0.081 | 0.0010 | 0.0205 | 0.0007 | 0.0012 | 0.0103 |
| 1 | IARM 88C * | 2.96 | 5.82 | 2.99 | 0.14 | 22.8 | 64.6 | (0.003) | (0.004) | 0.0010 | (0.008) | 0.27 | 0.020 | 0.13 | (0.001) | (0.003) | 0.09 |
| 2 | BS 675A | 0.32 | <0.002 | 1.12 | 0.8 | 39.1 | 58.5 | 0.003 | (0.0007) | . | . | 0.019 | 0.010 | 0.074 | (0.0005) | 0.0011 | (0.005) |
| 1 | BS 675B | 0.175 | (0.0005) | 1.10 | 0.92 | 39.3 | 58.7 | 0.0009 | (0.001) | (0.0002) | (0.0002) | 0.0071 | 0.0020 | 0.071 | 0.0002 | 0.0011 | (0.005) |
| 1 | IARM 83B | 0.13 | 0.002 | 0.97 | 0.85 | 39.3 | 58.7 | . | 0.003 | . | . | 0.010 | 0.004 | 0.017 | (0.001) | (0.004) | (0.003) |
| 2 | BS 675 | 0.11 | <0.01 | 0.73 | 0.92 | 39.7 | Rem. | <0.005 | (0.0004) | . | last | <0.01 | <0.01 | <0.01 | (0.0013) | <0.01 | <0.02 |

BS 675B and 863B are 17025

CRM NICKEL BRONZE SET

available in SET/5 only

analysis listed in mass %

40 mm Ø x ~30 mm

| Number | Al | Bi | Cu | Fe | Ni | P | Pb | S | Sb | Se | Si | Sn | Zn |
|---------|---------|---------|-----|---------|-------|---------|---------|----------|--------|---------|-----------|-------|---------|
| IMN BN5 | 0.0245 | 0.0298 | rem | 0.00731 | 2.69 | 0.0634 | 0.00612 | 0.0018 | 0.0314 | 0.00636 | (0.00211) | 11.82 | 0.0560 |
| IMN BN1 | 0.00286 | 0.118 | rem | 0.495 | 0.226 | 0.123 | 0.0239 | 0.113 | 0.117 | 0.00335 | (0.00839) | 6.47 | 0.135 |
| IMN BN2 | 0.00371 | 0.0707 | rem | 0.589 | 1.64 | 0.0769 | 0.00514 | 0.213 | 0.0656 | 0.0104 | . | 6.21 | 0.369 |
| IMN BN3 | 0.00126 | 0.00098 | rem | 0.153 | 1.04 | 0.00038 | 0.0054 | (0.0017) | 0.0088 | . | . | 9.29 | 0.0625 |
| IMN BN4 | 0.00055 | 0.00595 | rem | 0.0216 | 0.635 | 0.0066 | 0.0145 | 0.112 | 0.0055 | 0.0134 | (0.00064) | 9.81 | 0.00771 |

PHOSPHOR BRONZE

= class, where 1 = CRM and 2 = RM

| # | Number | P | Sn | Zn | Cu | Mn | Ni | Pb | Al | As | Fe | Mg | S | Sb | Si |
|---|----------------|--------|-------|--------|--------|----------|--------|--------|----------|---------|--------|--------|--------|---------|----------|
| 1 | 32X PB 11G | 0.946 | 3.306 | 1.71 | 90.44 | 0.132 | 0.898 | 0.995 | 0.081 | 0.198 | 0.399 | 0.0091 | 0.0148 | 0.584 | 0.123 |
| 1 | 32X 51000A | 0.300 | 4.85 | 0.0105 | 94.87 | . | 0.0084 | 0.0032 | 0.0007 | . | 0.0024 | . | 0.0021 | . | . |
| 1 | 33X 54400A | 0.243 | 3.97 | 3.87 | 86.79 | . | 0.244 | 4.69 | 0.0009 | 0.0156 | 0.072 | . | 0.0251 | 0.0362 | . |
| 1 | 32X PB 20A | 0.196 | 4.55 | 0.007 | 95.22 | <0.005 | 0.0090 | 0.0045 | <0.005 | 0.0011 | 0.0013 | . | 0.0030 | 0.0012 | 0.0046 |
| 1 | IARM 78B | 0.19 | 4.73 | 3.55 | 87.7 | (0.002) | 0.077 | 3.87 | (0.002) | <0.003 | 0.02 | . | 0.010 | 0.01 | <0.002 |
| 1 | IARM 77B | 0.148 | 4.66 | 0.007 | 95.2 | (0.002) | 0.002 | 0.016 | (0.001) | (0.001) | 0.002 | . | 0.002 | 0.005 | (0.003) |
| 1 | 32X 52100A | 0.146 | 7.73 | 0.0026 | 92.10 | . | 0.0111 | 0.0031 | 0.0009 | 0.0009 | 0.0008 | . | 0.0008 | . | . |
| 1 | 32X PB14E * | 0.13 | 9.8 | 0.12 | (90) | 0.014 | 0.11 | 0.037 | 0.024 | 0.024 | 0.02 | . | 0.07 | 0.047 | . |
| 2 | BS 510A | 0.11 | 4.6 | 0.21 | 95.10 | <0.002 | 0.020 | 0.016 | <0.002 | 0.0008 | 0.005 | . | 0.008 | (0.003) | <0.003 |
| 2 | CURM 54.02 | 0.107 | 5.53 | 0.410 | 92.87 | 0.101 | 0.109 | 0.663 | 0.020 | 0.023 | 0.102 | 0.0020 | 0.030 | 0.026 | 0.012 |
| 1 | 32X PB 13E | 0.089 | 6.55 | 0.301 | 92.48 | 0.0440 | 0.0953 | 0.109 | 0.0251 | 0.0391 | 0.0549 | . | . | 0.092 | 0.053 |
| 1 | 32X PB 15A | 0.0873 | 2.21 | 0.76 | 96.07 | 0.125 | 0.212 | 0.174 | 0.045 | 0.123 | 0.116 | 0.0275 | . | 0.026 | 0.043 |
| 1 | 32X PB 12F | 0.076 | 5.03 | 0.130 | 94.16 | 0.0014 | 0.205 | 0.0436 | (0.0005) | 0.0512 | 0.053 | . | 0.0108 | 0.1822 | (0.002) |
| 1 | BS 510B | 0.074 | 4.6 | 0.251 | [95.0] | 0.0004 | 0.0211 | 0.0112 | (0.006) | 0.0010 | 0.009 | . | 0.007 | (0.002) | (0.003) |
| 2 | CURM 54.01 | 0.053 | 3.17 | 0.346 | 95.42 | 0.158 | 0.348 | 0.307 | 0.040 | 0.044 | 0.028 | 0.008 | 0.023 | 0.070 | 0.039 |
| 2 | HRT CU2016 | 0.050 | 7.23 | 0.006 | 92.67 | . | 0.007 | 0.006 | . | . | 0.004 | . | 0.003 | 0.006 | . |
| 2 | C54.01 | 0.05 | 3.2 | 0.31 | Rem | 0.13 | 0.26 | 0.29 | 0.009 | 0.04 | 0.01 | <0.001 | 0.03 | 0.08 | 0.006 |
| 1 | BS 544B | 0.0258 | 4.06 | 3.51 | 88.2 | (0.0009) | 0.068 | 3.9 | (0.0009) | 0.0043 | 0.087 | . | 0.0249 | 0.0244 | 0.0042 |
| 1 | 32X PB 10P | 0.0030 | 12.37 | 0.256 | 87.14 | (0.0004) | 0.0130 | 0.0182 | (0.0016) | 0.0126 | 0.0043 | . | 0.0144 | 0.0134 | (0.0006) |

| Number | Ag | Bi | C | Co | Cr | N | O | Se | Units |
|----------------|--------------|--------|----------|----------|----------|----------------------|--------|--------|-------------------------------------|
| 32X PB 11G | . | 0.0310 | . | 0.090 | . | . | . | . | ~40 mm Ø x ~15 mm |
| 32X 51000A | 0.0022 | . | . | . | . | . | . | . | 38 mm Ø x ~15 mm |
| 33X 54400A | 0.0124 | . | . | 0.0013 | . | . | . | . | ~38 mm Ø x ~15 mm |
| 32X PB 20A | . | . | . | . | . | . | . | . | 38 mm Ø x 17 mm |
| IARM 78B | . | . | . | . | . | . | . | . | 31 mm Ø x 2 or 18 mm |
| IARM 77B | . | . | 0.003 | . | . | . | . | . | 31 mm Ø x 2 or 18 mm |
| 32X 52100A | 0.0011 | 0.0019 | . | . | . | . | . | . | 38 mm Ø x ~15 mm |
| 32X PB14E * | 0.016 | 0.15 | . | 0.005 | * | Provisional Analysis | . | . | ~40 mm Ø x ~15 mm |
| BS 510A | . | . | (0.0006) | . | . | . | . | . | 38 mm Ø x 12 mm last of stock |
| CURM 54.02 | . | . | . | . | . | . | . | . | 50 mm Ø x 10-12 mm |
| 32X PB 13E | 0.0205 | 0.0224 | . | 0.0088 | . | . | . | . | ~40 mm Ø x ~15 mm |
| 32X PB 15A | . | . | . | 0.0509 | . | . | . | . | 40 mm Ø x ~15 mm |
| 32X PB 12F | 0.0155 | 0.0647 | . | 0.0150 | . | . | . | . | ~40 mm Ø x ~15 mm |
| BS 510B | Zr: (0.0004) | 0.0010 | (0.0006) | (0.0008) | (0.0001) | 0.0009 | . | . | 38 mm Ø x ~7 or 19+ mm 17025 |
| CURM 54.01 | . | . | . | . | . | . | . | . | 50 mm Ø x 10-12 mm |
| HRT CU2016 | . | . | . | . | . | . | . | . | 40 mm Ø x 20 mm |
| C54.01 | . | . | . | . | . | . | . | . | 50 mm Ø x 10-12 mm |
| BS 544B | 0.0173 | . | 0.0031 | (0.0012) | (0.0007) | (0.0007) | 0.0005 | . | 38 mm Ø x ~7 or 19+ mm 17025 |
| 32X PB 10P | . | 0.034 | 0.0062 | . | . | . | . | 0.0074 | ~40 mm Ø x ~15 mm |

**Need a larger size?
Most BS items are
available in any height.**

SILICON BRONZE

= class, where 1 = CRM and 2 = RM

| # | Number | Si | Cu | Mn | Al | As | C | Cr | Fe | Ni | P | Pb | Sn | Zn |
|---|----------------|------|-------|-------|---------|--------|----------|--------|-------|--------|---------|--------|--------|--------|
| 1 | BS 655B | 3.25 | 95.7 | 0.928 | <0.005 | 0.0004 | 0.0012 | 0.0006 | 0.042 | 0.0043 | 0.0047 | 0.0205 | 0.0053 | 0.0248 |
| 1 | BS 655C | 3.22 | 95.6 | 0.958 | <0.005 | 0.0006 | <0.005 | 0.0021 | 0.052 | 0.0030 | 0.0035 | 0.0047 | 0.0049 | 0.0152 |
| 1 | IARM 82B | 3.22 | 95.3 | 1.04 | 0.002 | <0.002 | (0.003) | 0.004 | 0.080 | 0.011 | 0.004 | 0.011 | 0.017 | 0.38 |
| 1 | 37X 65500A | 3.13 | 95.75 | 0.960 | 0.0028 | . | (0.0044) | 0.0029 | 0.035 | 0.0059 | 0.0046 | 0.0034 | 0.0426 | 0.0353 |
| 2 | BS 655A | 3.14 | 95.74 | 0.91 | (0.002) | <0.002 | (0.0006) | . | 0.075 | 0.008 | (0.004) | 0.008 | 0.07 | 0.02 |

| Number | Be | Co | Mg | N | O | S | Sb | Zr | Units |
|----------------|---------|--------|---------|---------|---------|----------|---------|---------|------------------------------------|
| BS 655B | <0.0005 | <0.005 | <0.0005 | <0.0005 | <0.0005 | 0.0010 | 0.0002 | <0.0005 | 38 mm Ø x ~7 or 19 mm 17025 |
| BS 655C | <0.0005 | <0.005 | <0.005 | <0.0005 | <0.001 | 0.0007 | <0.0005 | . | 38 mm Ø x ~7 or 19 mm 17025 |
| IARM 82B | . | . | . | <0.0005 | (0.001) | 0.003 | <0.01 | . | 31 mm Ø x 2 or 18 mm |
| 37X 65500A | 0.0014 | . | . | . | . | 0.0010 | . | . | ~38 mm Ø x ~15 mm |
| BS 655A | . | . | . | . | . | (0.0006) | <0.002 | . | 38 mm Ø x 12 mm |

CRM SILICON BRONZE SET

available in SET/6 ONLY, as grouped

40 mm Ø x 25 mm

| Number | Al | As | Bi | Cu | Fe | Mg | Mn | Ni | P | Pb | S | Sb | Si | Sn | Zn |
|---------|-------|--------|--------|-----|-------|--------|------|-------|--------|-------|--------|--------|------|-------|------|
| IMN BH1 | 0.027 | 0.0047 | 0.018 | Rem | 1.67 | 0.0065 | 0.25 | 0.96 | 0.0047 | 0.74 | 0.012 | 0.066 | 4.77 | 0.044 | 2.03 |
| IMN BH2 | 0.079 | 0.015 | 0.014 | Rem | 1.28 | 0.0066 | 0.54 | 0.74 | 0.023 | 0.57 | 0.0092 | 0.042 | 4.14 | 0.21 | 2.99 |
| IMN BH3 | 0.14 | 0.022 | 0.0091 | Rem | 0.98 | 0.0075 | 1.00 | 0.53 | 0.039 | 0.40 | 0.0062 | 0.026 | 3.07 | 0.37 | 3.84 |
| IMN BH4 | 0.22 | 0.054 | 0.006 | Rem | 0.55 | 0.0057 | 1.46 | 0.28 | 0.059 | 0.24 | 0.0064 | 0.016 | 2.29 | 0.55 | 4.91 |
| IMN BH5 | 0.29 | 0.071 | 0.0019 | Rem | 0.093 | 0.0024 | 1.80 | 0.047 | 0.073 | 0.015 | 0.0055 | 0.0054 | 1.45 | 0.69 | 5.58 |
| IMN BH6 | 0.32 | 0.078 | 0.018 | Rem | 0.35 | 0.01 | 0.80 | 0.39 | 0.078 | 0.017 | 0.016 | 0.056 | 1.51 | 0.32 | 6.27 |

CRM LEADED, TIN, AND LEADED TIN BRONZE DISC AND ROD SETS

available in SETS ONLY, as grouped

IMN BB: 10 mm Ø x 100 mm

IMN BL: 40 mm Ø x 27 mm

IMN BI, WL: 40 mm Ø x 25 mm

| Number | Al | As | Bi | C | Cd | Co | Cu | Fe | Mg | Mn | Ni | P | Pb | S | Sb | Si | Sn | Zn |
|---------|---------|---------|--------|--------|--------|--------|-------|--------|---------|---------|--------|---------|--------|----------|--------|----------|-------|--------|
| IMN BL1 | 0.11 | 0.058 | 0.024 | . | 0.060 | . | Rem | 0.38 | 0.051 | 0.062 | 0.25 | 0.49 | 0.25 | (0.0081) | 0.053 | 0.059 | 2.58 | 0.68 |
| IMN BL2 | 0.15 | 0.039 | 0.014 | . | 0.040 | . | Rem | 0.21 | 0.11 | 0.055 | 0.37 | 0.29 | 0.14 | (0.0063) | 0.039 | 0.031 | 4.04 | 0.40 |
| IMN BL3 | 0.019 | 0.025 | 0.0099 | . | 0.022 | . | Rem | 0.10 | . | 0.026 | 0.13 | 0.084 | 0.065 | . | 0.021 | 0.015 | 6.12 | 0.15 |
| IMN BL4 | . | 0.0089 | 0.0058 | . | 0.0092 | . | Rem | 0.014 | . | 0.0092 | 0.015 | 0.010 | 0.013 | (0.022) | 0.0095 | 0.011 | 8.38 | 0.017 |
| IMN BL5 | 0.00052 | 0.00057 | 0.0015 | . | 0.0015 | . | Rem | 0.0061 | 0.0030 | 0.0011 | 0.0074 | 0.0042 | 0.0069 | 0.031 | 0.0039 | (0.0038) | 11.05 | 0.0078 |
| IMN BB1 | 0.019 | 0.086 | 0.032 | . | . | . | 84.82 | 0.33 | . | 0.081 | 0.061 | 0.055 | 1.55 | . | 0.60 | 0.037 | 8.10 | 3.90 |
| IMN BB2 | 0.032 | 0.12 | 0.024 | . | . | . | 84.09 | 0.28 | . | 0.12 | 0.097 | 0.085 | 2.64 | . | 0.49 | 0.055 | 7.11 | 4.70 |
| IMN BB3 | 0.0021 | 0.0079 | 0.0021 | . | . | . | 80.88 | 0.037 | . | 0.0012 | 2.42 | (0.014) | 6.73 | . | 0.052 | 0.0044 | 3.36 | 6.23 |
| IMN BB4 | 0.0062 | 0.029 | 0.011 | . | . | . | 81.32 | 0.086 | . | 0.020 | 1.20 | 0.030 | 6.14 | . | 0.21 | 0.018 | 2.58 | 8.11 |
| IMN BB5 | 0.015 | 0.051 | 0.018 | . | . | . | 82.25 | 0.14 | . | 0.054 | 0.49 | 0.037 | 5.18 | . | 0.31 | 0.028 | 4.11 | 7.21 |
| IMN BB6 | 0.040 | 0.16 | 0.041 | . | . | . | 83.54 | 0.31 | . | 0.15 | 0.23 | 0.12 | 3.52 | . | 0.62 | 0.083 | 5.47 | 5.40 |
| IMN BI1 | 0.15 | 0.14 | 0.12 | . | . | . | Rem | 0.42 | . | 0.26 | 2.41 | 0.70 | 6.97 | (0.011) | 0.58 | 0.23 | 3.19 | 3.55 |
| IMN BI2 | 0.077 | 0.11 | 0.070 | . | . | . | Rem | 0.31 | . | 0.15 | 1.46 | 0.59 | 5.39 | (0.0055) | 0.43 | 0.13 | 4.18 | 5.73 |
| IMN BI3 | 0.034 | 0.052 | 0.028 | . | . | . | Rem | 0.17 | . | 0.082 | 0.29 | 0.32 | 4.52 | (0.003) | 0.24 | 0.075 | 5.01 | 7.16 |
| IMN BI4 | 0.0020 | 0.010 | 0.0030 | . | . | . | Rem | 0.083 | . | 0.025 | 0.088 | 0.029 | 3.82 | (0.002) | 0.075 | 0.014 | 7.69 | 10.22 |
| IMN WL1 | 0.082 | 0.0010 | 0.0093 | 0.0050 | 0.0017 | 0.0010 | 95.54 | 0.072 | 0.00036 | 0.0041 | 0.44 | 0.012 | 0.013 | 0.020 | . | 0.057 | 0.22 | 3.52 |
| IMN WL2 | 0.057 | 0.0078 | 0.0073 | 0.0082 | 0.0023 | 0.0065 | 97.49 | 0.13 | 0.00097 | 0.0038 | 0.32 | 0.016 | 0.011 | 0.0070 | 0.0050 | 0.046 | 0.32 | 1.56 |
| IMN WL3 | 0.0034 | 0.020 | 0.0050 | 0.010 | 0.010 | 0.0096 | 96.51 | 0.20 | 0.0016 | 0.38 | 0.22 | 0.021 | 0.0083 | 0.0088 | 0.0085 | 0.0037 | 0.37 | 2.21 |
| IMN WL4 | . | 0.0034 | 0.0026 | 0.0032 | 0.0068 | 0.013 | 96.41 | 0.012 | . | . | 0.019 | . | 0.0066 | 0.0050 | . | 0.0019 | 0.55 | 2.97 |
| IMN WL5 | 0.0014 | 0.0011 | 0.0011 | . | 0.0038 | 0.019 | 97.62 | 0.0025 | . | 0.00073 | 0.0014 | . | 0.0030 | 0.0019 | 0.0006 | 0.0009 | 0.73 | 1.61 |
| IMN WL6 | 0.10 | 0.024 | 0.012 | 0.016 | 0.025 | 0.019 | 95.76 | 0.31 | 0.015 | 0.14 | 0.091 | 0.032 | 0.016 | 0.017 | 0.011 | 0.13 | 0.80 | 2.48 |

COPPER ALLOY XRF SET

Part Number: BS CU-22 AVAILABLE INDIVIDUALLY ~7 mm thick discs (BS 938-1 ~12mm) **17025**

| CDA | Number | Cu | Al | Fe | Mn | Ni | Pb | Si | Sn | Zn | As | C | P | S | Sb | Be | Co |
|-----|-----------------|-------|------------|--------|---------|---------|----------|----------|---------|---------|-----------|----------|---------|-----------|----------|---------|-------------|
| 110 | BS 110B | 99.94 | <0.0002 | 0.0005 | <0.0001 | <0.0002 | 0.00052 | <0.0004 | <0.0002 | <0.0003 | <0.0001 | 0.0007 | <0.0006 | 0.00030 | <0.0005 | <1ppm | <1ppm |
| 145 | BS 14500 | 99.4 | (<0.0006) | 0.0041 | 0.00004 | 0.0008 | (<0.002) | 0.0002 | 0.0002 | 0.004 | (<0.0005) | 0.0005 | 0.0075 | 0.0033 | (<0.001) | (<1ppm) | (<1ppm) |
| 172 | BS 172Be-1 | 97.68 | (0.02) | 0.052 | 0.0010 | 0.039 | (0.002) | 0.055 | 0.033 | 0.0070 | (0.001) | (0.001) | 0.003 | (<0.0002) | 0.008 | 1.89 | 0.206 |
| 360 | BS 360A | 61.42 | <0.001 | 0.151 | 0.0007 | 0.058 | 2.51 | <0.005 | 0.13 | 35.63 | 0.002 | (0.0032) | 0.001 | (0.0003) | 0.008 | . | . |
| 464 | BS 464A | 60.6 | (0.001) | 0.013 | 0.0002 | 0.004 | 0.056 | <0.01 | 0.62 | 38.73 | <0.002 | (0.0006) | 0.012 | 0.001 | (0.001) | . | . |
| 482 | BS 482A | 60.0 | (0.003) | 0.020 | <0.002 | (0.007) | 0.50 | (0.002) | 0.65 | 38.8 | <0.002 | (0.0015) | <0.003 | <0.002 | 0.0012 | . | . |
| 510 | BS 510A | 96.10 | <0.002 | 0.005 | <0.002 | 0.020 | 0.016 | <0.003 | 4.6 | 0.21 | 0.0008 | (0.0006) | 0.11 | 0.008 | (0.003) | . | . |
| 544 | BS 544A | 88.4 | (0.0005) | 0.092 | <0.002 | 0.16 | 4.16 | <0.002 | 4.42 | 3.42 | 0.011 | 0.003 | 0.021 | 0.038 | 0.040 | . | . |
| 623 | BS 623A | 88.13 | 9.12 | 2.19 | 0.273 | 0.146 | 0.001 | 0.014 | 0.002 | 0.008 | (0.006) | (0.002) | <0.002 | <0.0005 | <0.002 | . | . |
| 630 | BS 630A | 81.0 | 10.05 | 3.73 | 0.11 | 4.81 | 0.0069 | 0.037 | 0.019 | 0.17 | (0.002) | 0.005 | <0.01 | (0.001) | <0.001 | . | . |
| 642 | BS 642A | 91.0 | 6.70 | 0.17 | 0.005 | 0.025 | 0.001 | 1.80 | 0.018 | 0.011 | <0.002 | 0.001 | 0.001 | <0.001 | (<0.002) | . | . |
| 655 | BS 655A | 95.74 | (0.002) | 0.075 | 0.91 | 0.008 | 0.008 | 3.14 | 0.07 | 0.02 | <0.002 | (0.0006) | (0.004) | (0.0003) | <0.002 | . | . |
| 675 | BS 675A | 58.5 | <0.002 | 1.12 | 0.32 | 0.019 | 0.074 | (0.005) | 0.80 | 39.1 | <0.002 | (0.0007) | 0.010 | (0.0005) | 0.0011 | . | . |
| 706 | BS 706A | 87.60 | (0.002) | 1.30 | 0.66 | 10.18 | 0.008 | <0.005 | 0.011 | 0.13 | <0.0005 | 0.004 | 0.006 | 0.012 | 0.0006 | . | . |
| 715 | BS 715A | 69.0 | (0.01) | 0.61 | 0.82 | 30.22 | (0.007) | 0.10 | 0.008 | 0.10 | (0.0014) | 0.03 | 0.006 | 0.001 | (0.003) | . | . |
| 863 | BS 863A | 64.1 | 5.21 | 2.41 | 3.00 | 0.29 | 0.022 | 0.034 | 0.013 | 24.8 | 0.010 | 0.003 | (0.007) | <0.0005 | 0.003 | . | . |
| 903 | BS 903B | 86.7 | (0.001) | 0.049 | 0.0004 | 0.50 | 0.10 | 0.002 | 7.9 | 4.39 | 0.003 | (0.0004) | 0.073 | 0.006 | 0.003 | . | . |
| 922 | BS 922B-3 | 88.4 | (0.001) | 0.008 | (0.002) | 0.61 | 1.33 | (0.001) | 5.8 | . | 0.001 | . | 0.026 | . | 0.002 | . | Ag: (0.001) |
| 929 | BS 929 | 85.3 | (<0.00005) | 0.0030 | . | 3.37 | 1.98 | (<0.001) | 9.07 | 0.0055 | 0.0017 | (<0.005) | 0.119 | 0.0026 | 0.0146 | 0.0031 | 0: 0.0031 |
| 938 | BS 938-1 | 77.1 | (<0.002) | 0.015 | (0.001) | 0.49 | 14.8 | (<0.004) | 7.16 | 0.26 | (0.004) | . | 0.059 | 0.009 | 0.033 | . | Ag: 0.0048 |
| 954 | BS 954A | 85.64 | 10.17 | 3.50 | 0.10 | 0.20 | 0.016 | 0.029 | 0.033 | 0.30 | (0.006) | 0.004 | 0.012 | <0.0001 | 0.001 | . | . |
| 955 | BS 955C | 80.6 | 10.68 | 4.04 | 0.06 | 4.31 | 0.003 | 0.025 | 0.003 | 0.15 | (<0.002) | . | 0.012 | . | (<0.002) | . | Ag: 0.014 |

| CDA | Number | Cu | Al | Fe | Mn | Ni | Pb | Si | Sn | Zn | As | C | P | S | Sb | Be | Co |
|-----|--------|----|----|----|----|----|----|----|----|----|----|---|---|---|----|----|----|
|-----|--------|----|----|----|----|----|----|----|----|----|----|---|---|---|----|----|----|

| ALLOY | ISO? | NUMBER | ALLOY | ISO? | NUMBER | ALLOY | ISO? | NUMBER |
|---------|-------|-------------|-------------------|-------|--------------|--------------------|------|-------------|
| 110 | 17025 | BS 110B | 675 | | IARM 83B | 947 | | IARM 267A |
| 122.2 | | CURM 09.03 | 687 | | BAM 368 | 952.2 | | CTIF 2152-S |
| 125 | | CURM 09.02 | 693 | | IARM 313A | 953 | | CTIF CA3 |
| 145 | 17025 | BS 14500 | 697 | | CTIF L3 | 954 | | BS 954A |
| 145 | | BS 14500A | 702.6 | | 37X 218 | 954 | | BS 954B |
| 145 | | IARM 278A | 706 | | 36X 70600A | 954 | | BS 954C |
| 172 | | BS 172Be-1 | 706 | | BS 706 | 954 | | BS CC954 |
| 172 | | CTIF 4872 | 706 | | BS 706A | 954 | | IARM 93B |
| 173.0 | | 36X CBC4 | 706 | | BS 706B | 954 MOD | | IARM 204A |
| 175 | 17025 | BS 17500 | 706 | | BS 706C | 955 | | BS 955B |
| 180 | | 36X 274 | 706 | | CTIF CuNi 10 | 955 | | BS 955C |
| 181.50 | 17025 | BS 18150 | 706 | | HRT CU2014 | 955 | | IARM 94B |
| 181.50 | 17025 | BS 18150A | 710 | | 36X CN3 | 955 MOD | | CTIF CA10 |
| 181.55 | | 36X CCR1 | 713 | | BAM 389 | 955.1 | | IARM 334A |
| 182 | | IARM 279A | 715 | | 36X 71500 | 955.1 | | IARM 334B |
| 240 | | C30.07 | 715 | | BS 715A | 955.1 MOD | | CTIF CA22 |
| 260 | | C48.06 | 715 | | IARM 85C | 956 | | 32X CA12 |
| 260 | | CURM 48.04 | 715 | | SRM 1276a | 958 | | IARM 235A |
| 261.3 | | C48.03 | 762 | | 34X NS2 | 958.2 | | 32X CA1 |
| 274 | | C38.06 | 767 | | C65.28 | 964 | | IARM 236A |
| 274 | | C38.06-1 | 770 | | 34X NS5 | 997.5 | | 31X MNB12 |
| 280 | | C30.03 | 798.3 | | 34X 79830 | Coinage Alloy | | 36X CN21 |
| 280 | | C30.12 | 815 | | IARM 158B | Coinage Alloy | | 36X CN23 |
| 314 | | IARM 72B | 815 | | IARM 158C | Cu IX | | SRM C1252a |
| 316 | | 31X 7835-7 | 836 | | 33X GM5 | Cu VIII | | SRM C1251a |
| 360 | 17025 | BS 360B | 836 | 17025 | BS 836A-3 | Cu X | | SRM C1253a |
| 360 | | IARM 73C | 836 | 17025 | BS 836A-4 | Envirobrass 2-1 | | IARM 226A |
| 360 | | SRM 1124 | 838 | | 33X GM8 | Envirobrass 2-2 | | IARM 227A |
| 370 | | 31X B18 | 838.1 | | 33X RB1 | Envirobrass 2-3 | | IARM 228A |
| 371 | | C30.22 | 855 | | 31X B2 | Federalloy I-836 | | IARM 265A |
| 464 | | BS 464 | 855 | | 31X TB3 | Federalloy I-844 | | IARM 264A |
| 464 | | BS 464A | 855 | | C38.01 | Federalloy I-848A | | IARM 263A |
| 464 | | BS 464B | 855 | | C38.02 | Federalloy III-932 | | IARM 266A |
| 464 | | IARM 74A | 855 | | C38.03 | NARloy-A | | IARM 159A |
| 464 | | IARM 74B | 855 | | C38.04 | NARloy-Z | | IARM 160A |
| 482 | | BS 482A | 855 | | C38.05 | Purity | | BAM EB385 |
| 482 | | IARM 75B | 857 | | BS 857B-1 | Purity | | BAM EB386 |
| 485 | | IARM 76D | 857 | | BS 857B-2 | Spinodal Alloy | | 36X SP1 |
| 510 | | 32X PB20 | 857 | | BS 857B-3 | Spinodal Alloy | | 36X SP2 |
| 510 | | 32X 51000 | 857 | | BS 857B-4 | | | |
| 510 | | BS 510A | 857 | | IARM 87B | | | |
| 510 | 17025 | BS 510B | 862 | | CTIF LH7 | | | |
| 510 | | IARM 77B | 863 | 17025 | BS 863B | | | |
| 512 | | 32X 92100 | 863 | | IARM 88C | | | |
| 521 | | 32X 52100 | 873 | | 31X WSB6 | | | |
| 521 | | HRT CU2016 | 875 | | IARM 151B | | | |
| 524 | | C11.04 | 893.2, Magnolia B | | IARM 211A | | | |
| 544 | | 33X 54400 | 902 | | BAM 377 | | | |
| 544 | 17025 | BS 544B | 903 | | BS 903B | | | |
| 544 | | IARM 78B | 903 | 17025 | BS 903D | | | |
| 610 MOD | | 31X B17 | 903 | 17025 | BS 903E | | | |
| 614 | | 32X 61400 | 903 | | IARM 89C | | | |
| 615.5 | | 36X CN22 | 905 | | BS 905A-1 | | | |
| 622 | | CTIF 2154-V | 905 | | BS 905A-2 | | | |
| 623 | | 32X CA7 | 905 | | BS 905A-3 | | | |
| 623 | | BS 623 | 905 | | BS 905A-4 | | | |
| 623 | | BS 623A | 905 | | BS CC905 | | | |
| 623 | | IARM 79B | 907 | | IARM 310A | | | |
| 623 | | IARM 79C | 910 MOD | | CTIF B1 | | | |
| 624 | | 32X ALB3 | 922 | | BS 922B-1 | | | |
| 624 | | C52.51 | 922 | | BS 922B-2 | | | |
| 624 | | CTIF 3011-G | 922 | | BS 922B-3 | | | |
| 624 | | CTIF CA21 | 922 | | BS 922B-4 | | | |
| 630 | | 32X CA23 | 922 | | BS 922B-5 | | | |
| 630 | | BS 630A | 924 MOD | | 33X GM7 | | | |
| 630 | 17025 | BS 630B | 927.1 | | 32X SN1 | | | |
| 630 | 17025 | BS 630C | 929 | 17025 | BS 929 | | | |
| 632 | | 32X CA31 | 931 MOD | | C71.34 | | | |
| 642 | 17025 | BS 642B | 932 | 17025 | BS 932F | | | |
| 642 | 17025 | BS 642C | 932 | | BS 932G | | | |
| 642 | | BS 642D | 932 | | BS 932H | | | |
| 642 | | IARM 81B | 932 | | IARM 91E | | | |
| 655 | | 37X 65500 | 932 MOD | | CTIF B23 | | | |
| 655 | | BS 655A | 936 | 17025 | BS 936 | | | |
| 655 | 17025 | BS 655B | 936 | | CTIF B31 | | | |
| 655 | 17025 | BS 655C | 937 | | 32X 93700 | | | |
| 655 | | IARM 82B | 937 | 17025 | BS 937C | | | |
| 673 | | 31X HT37 | 937 | | CURM 50.02 | | | |
| 674 | | 31X HT38 | 938 | | BS 938-1 | | | |
| 675 | | BS 675 | 941 | | IARM 184A | | | |
| 675 | | BS 675A | 944 MOD | | 32X LB10 | | | |
| 675 | 17025 | BS 675B | 945 MOD | | CTIF B32 | | | |

Please use the Adobe Acrobat "search" function to find the complete chemistry of these samples listed within this catalog.

The best efforts have been made in the construction of this chart. Some samples do not perfectly fit the alloy specifications, but are considered acceptable for the purposes of calibration and type standardization.

| Alloy | Notes | Cu | Ag | Al | Fe | Mn | Ni | P | Pb | S | Sb | Si | Sn | Zn | As | Be | Bi | Co | Cr | Mg | Ti | Zr | |
|--------|-------|-----------|----|-----------|-----------|-----------|-----------|-------------|-----------|---|----|----|----|-----------|----|----|----|----|----|----|----|----|--|
| 385.1 | | 56.0-60.0 | | | | | | | 2.5-4.5 | | | | | rem | | | | | | | | | |
| 385.9 | | 56.5-60.0 | | | <0.35 | | | | 2.0-3.5 | | | | | rem | | | | | | | | | |
| 386 | | 56.0-59.0 | | | <0.35 | | | | 2.5-3.5 | | | | | rem | | | | | | | | | |
| 404 | | 94.0-96.0 | | | <0.05 | | | | <0.05 | | | | | 0.35-0.70 | | | | | | | | | |
| 405 | | 94.0-96.0 | | | <0.05 | | | | <0.05 | | | | | 0.7-1.3 | | | | | | | | | |
| 408.1 | | 94.0-96.0 | | | <0.05 | | | | <0.05 | | | | | 1.8-2.2 | | | | | | | | | |
| 408.2 | | 94.5-96.5 | | | 0.08-0.12 | | | | <0.05 | | | | | 1.8-2.2 | | | | | | | | | |
| 408.5 | | >94.00 | | | 0.05-0.12 | | 0.11-0.20 | 0.028-0.040 | <0.05 | | | | | 1.0-2.15 | | | | | | | | | |
| 408.6 | | 94.5-96.5 | | | 0.05-0.20 | | 0.05-0.20 | 0.02-0.04 | <0.05 | | | | | 0.20-2.50 | | | | | | | | | |
| 408.6 | | 94.0-96.0 | | | 0.01-0.05 | | 0.05-0.20 | 0.02-0.04 | <0.05 | | | | | rem | | | | | | | | | |
| 409 | | 92.0-94.0 | | | <0.05 | | | | <0.05 | | | | | 0.50-0.80 | | | | | | | | | |
| 410 | | 91.0-93.0 | | | <0.05 | | | | <0.05 | | | | | 2.0-2.8 | | | | | | | | | |
| 411 | | 89.0-92.0 | | | <0.05 | | | | <0.10 | | | | | 0.30-0.70 | | | | | | | | | |
| 411.2 | | 89.0-92.0 | | | 0.05-0.20 | | 0.05-0.20 | 0.02-0.05 | <0.10 | | | | | 0.30-0.70 | | | | | | | | | |
| 413 | | 89.0-93.0 | | | <0.05 | | | | <0.10 | | | | | rem | | | | | | | | | |
| 415 | | 89.0-93.0 | | | <0.05 | | | | <0.10 | | | | | 1.5-2.2 | | | | | | | | | |
| 419 | | 89.0-92.0 | | | <0.05 | | | | <0.10 | | | | | 4.8-5.5 | | | | | | | | | |
| 420 | | 88.0-91.0 | | | <0.05 | | | <0.25 | <0.05 | | | | | 1.5-2.0 | | | | | | | | | |
| 421 | | 87.5-89.0 | | | <0.05 | 0.15-0.35 | | <0.35 | <0.05 | | | | | 2.2-3.0 | | | | | | | | | |
| 422 | | 86.0-89.0 | | | <0.05 | | | <0.35 | <0.05 | | | | | 0.8-1.4 | | | | | | | | | |
| 422.2 | | 88.0-91.0 | | | 0.05-0.20 | | | 0.02-0.05 | <0.05 | | | | | 0.7-1.4 | | | | | | | | | |
| 425 | | 87.0-90.0 | | | <0.05 | | | <0.35 | <0.05 | | | | | 1.5-3.0 | | | | | | | | | |
| 425.2 | | 88.0-91.0 | | | 0.05-0.20 | | 0.05-0.20 | 0.02-0.04 | <0.05 | | | | | 1.5-3.0 | | | | | | | | | |
| 426 | | 87.0-90.0 | | | 0.05-0.20 | | 0.05-0.20 | 0.02-0.05 | <0.05 | | | | | 2.5-4.0 | | | | | | | | | |
| 430 | | 84.0-87.0 | | | <0.05 | | | | <0.10 | | | | | 1.7-2.7 | | | | | | | | | |
| 432 | | 85.0-88.0 | | | <0.05 | | | <0.35 | <0.05 | | | | | 0.40-0.60 | | | | | | | | | |
| 434 | | 84.0-87.0 | | | <0.05 | | | | <0.05 | | | | | 0.40-1.00 | | | | | | | | | |
| 435 | | 83.0-86.0 | | | <0.05 | | | | <0.10 | | | | | 0.6-1.2 | | | | | | | | | |
| 436 | | 80.0-83.0 | | | <0.05 | | | | <0.05 | | | | | 0.20-0.50 | | | | | | | | | |
| 438 | | 79.0-82.0 | | | <0.05 | | | | <0.05 | | | | | 1.0-1.5 | | | | | | | | | |
| 442.5 | | 73.0-76.0 | | | <0.20 | | <0.20 | <0.10 | <0.07 | | | | | 0.50-1.50 | | | | | | | | | |
| 443 | | 70.0-73.0 | | | <0.06 | | | | <0.07 | | | | | 0.8-1.2 | | | | | | | | | |
| 444 | | 70.0-73.0 | | | <0.06 | | | 0.02-0.10 | <0.07 | | | | | 0.8-1.2 | | | | | | | | | |
| 445 | | 70.0-73.0 | | | <0.06 | | | 0.02-0.10 | <0.07 | | | | | 0.8-1.2 | | | | | | | | | |
| 454.5 | | 65.0-66.0 | | 0.20-0.40 | | | | 0.10-0.30 | <0.07 | | | | | 0.10-0.30 | | | | | | | | | |
| 462 | | 62.0-65.0 | | <0.03 | <0.10 | | | | <0.20 | | | | | 0.50-1.00 | | | | | | | | | |
| 462.1 | | 61.0-64.0 | | | <0.10 | | | | <0.05 | | | | | <1.00 | | | | | | | | | |
| 464 | | 59.0-62.0 | | | <0.10 | | | | <0.20 | | | | | 0.50-1.00 | | | | | | | | | |
| 464.2 | | 61.0-63.5 | | | <0.10 | | | | <0.20 | | | | | 1.0-1.4 | | | | | | | | | |
| 465 | | 59.0-62.0 | | | <0.10 | | | | <0.20 | | | | | 0.50-1.00 | | | | | | | | | |
| 466 | | 59.0-62.0 | | | <0.10 | | | | <0.20 | | | | | 0.50-1.00 | | | | | | | | | |
| 467 | | 59.0-62.0 | | | <0.10 | | | 0.02-0.10 | <0.20 | | | | | 0.50-1.00 | | | | | | | | | |
| 470 | | 57.0-61.0 | | <0.01 | <0.10 | | | | <0.05 | | | | | 0.25-1.00 | | | | | | | | | |
| 472 | | 49.0-52.0 | | | <0.10 | | | | <0.50 | | | | | 3.0-4.0 | | | | | | | | | |
| 476 | | 86.0-88.0 | | | <0.05 | 0.05-0.15 | | 0.03-0.07 | 1.8-2.2 | | | | | 1.8-2.2 | | | | | | | | | |
| 479.4 | | 63.0-66.0 | | | 0.10-1.00 | | 0.10-0.50 | | 1.0-2.0 | | | | | rem | | | | | | | | | |
| 482 | | 59.0-62.0 | | | <0.10 | | | | 0.40-1.00 | | | | | 0.50-1.00 | | | | | | | | | |
| 485 | | 59.0-62.0 | | | <0.10 | | | | 1.3-2.2 | | | | | 0.50-1.00 | | | | | | | | | |
| 485.1 | | 59.0-62.0 | | | <0.10 | | | | 1.0-2.5 | | | | | 0.7-1.5 | | | | | | | | | |
| 486 | | 59.0-62.0 | | | <0.10 | | | | 1.0-2.5 | | | | | 0.8-1.5 | | | | | | | | | |
| 490.8 | | 49.0-52.0 | | <0.10 | <0.05 | | | | <0.50 | | | | | 3.0-4.0 | | | | | | | | | |
| 501 | | rem | | | <0.05 | | | | <0.05 | | | | | 0.50-0.80 | | | | | | | | | |
| 502 | | rem | | | <0.10 | | | | <0.05 | | | | | 1.0-1.5 | | | | | | | | | |
| 505 | | rem | | | <0.10 | | | | <0.05 | | | | | 1.0-1.7 | | | | | | | | | |
| 505.1 | | rem | | | <0.10 | | 0.15-0.40 | 0.02-0.07 | <0.05 | | | | | 0.10-0.25 | | | | | | | | | |
| 505.8 | | rem | | | 0.05-0.20 | | 0.05-0.20 | 0.02-0.10 | <0.05 | | | | | 1.0-1.7 | | | | | | | | | |
| 505.9 | | >97.00 | | | 0.05-0.40 | | | 0.02-0.15 | <0.02 | | | | | 0.5-1.5 | | | | | | | | | |
| 507 | | rem | | | <0.10 | | | <0.30 | <0.05 | | | | | 1.5-2.0 | | | | | | | | | |
| 507.05 | | >96.50 | | | 0.10-0.40 | | | 0.04-0.15 | <0.02 | | | | | 1.5-2.0 | | | | | | | | | |
| 507.1 | | rem | | | <0.10 | | 0.10-0.40 | <0.15 | <0.05 | | | | | 1.7-2.3 | | | | | | | | | |
| 507.15 | | rem | | | 0.05-0.15 | | | 0.025-0.040 | <0.02 | | | | | 1.7-2.3 | | | | | | | | | |
| 507.25 | | >94.00 | | | 0.05-0.20 | | | 0.02-0.06 | <0.02 | | | | | 1.5-2.5 | | | | | | | | | |
| 507.8 | | rem | | | 0.05-0.20 | | 0.05-0.20 | 0.020-0.100 | <0.05 | | | | | 1.7-2.3 | | | | | | | | | |
| 508 | | rem | | | <0.10 | | | 0.01-0.07 | <0.05 | | | | | 2.6-3.4 | | | | | | | | | |
| 509 | | rem | | | <0.10 | | | 0.03-0.30 | <0.05 | | | | | 2.5-3.8 | | | | | | | | | |
| 510 | | rem | | | <0.10 | | | 0.03-0.35 | <0.05 | | | | | 4.2-5.8 | | | | | | | | | |
| 510.8 | | rem | | | 0.05-0.20 | | 0.05-0.20 | 0.02-0.10 | <0.05 | | | | | 4.8-5.8 | | | | | | | | | |
| 511 | | rem | | | <0.10 | | | 0.03-0.35 | <0.05 | | | | | 3.5-4.9 | | | | | | | | | |
| 511.8 | | rem | | | 0.05-0.20 | | 0.11-0.20 | 0.02-0.10 | <0.05 | | | | | 3.5-4.9 | | | | | | | | | |
| 511.9 | | rem | | | 0.05-0.15 | | | 0.025-0.045 | <0.02 | | | | | 3.0-6.5 | | | | | | | | | |
| Alloy | Notes | Cu | Ag | Al | Fe | Mn | Ni | P | Pb | S | Sb | Si | Sn | Zn | As | Be | Bi | Co | Cr | Mg | Ti | Zr | |

| Alloy | Notes | Cu | Ag | Al | Fe | Mn | Ni | P | Pb | S | Sb | Si | Sn | Zn | As | Be | Bi | Co | Cr | Mg | Ti | Zr |
|-------|-----------------------|-----------|-------|-----------------------|--------------------|----------------|------------------|---------|-----------|---------|-------|-----------|-----------|-----------|-----------|----|---------|-------|----|------------|-----------|---------|
| 958.2 | | >77.50 | | 9.0-10.0 12.0-13.5 | 4.0-5.0 3.0-5.0 | <1.50 <1.50 | 4.5-5.8 <0.50 | | <0.02 | | | <0.10 | <0.20 | <0.20 | | | | | | | | |
| 959 | | rem | | 1.0-1.8 | 0.7-1.0 | 0.7-1.0 | 9.0-11.0 | <0.02 | <0.01 | <0.02 | | <0.50 | | | | | | | | | | |
| 962 | C <0.10, No <1.00 | rem | | 0.50-1.50 | 0.25-1.50 | 0.25-1.50 | 18.0-22.0 | <0.02 | <0.01 | <0.02 | | <0.50 | | | | | | | | | | |
| 963 | C <0.15, No 0.50-1.50 | rem | | 0.25-1.50 | 0.25-1.50 | 0.25-1.50 | 28.0-32.0 | <0.02 | <0.03 | <0.02 | | <0.50 | | | | | | | | | | |
| 964 | C <0.15, No 0.50-1.50 | rem | | 0.8-1.1 | 0.8-1.1 | 0.8-1.1 | 29.0-33.0 | | <0.01 | | | <0.15 | | | 0.40-0.70 | | | | | | | |
| 966 | | rem | | <0.10 | <0.50 | 0.05-0.30 | 9.5-10.5 | <0.0025 | <0.005 | <0.0025 | <0.02 | <0.15 | | | 1.10-1.20 | | | | | | 0.01-0.20 | 0.1-0.2 |
| 967 | No 0.10-0.30, B <0.01 | rem | | | <0.50 | 0.05-0.30 | 14.5-15.5 | | <0.02 | | | <0.05 | | | | | | | | 0.005-0.15 | <0.01 | |
| 968 | No <0.10 | rem | | | <0.50 | 0.05-0.40 | 11.0-15.5 | | <0.02 | | | <0.30 | | | | | | | | <0.15 | <0.15 | |
| 969.5 | No <0.10 | rem | | | <0.50 | 0.05-0.40 | 11.0-15.5 | | <0.02 | | | <0.30 | | | | | | | | <0.15 | <0.15 | |
| 973 | | 53.0-56.0 | | <0.005 | <1.50 | <0.50 | 11.0-14.0 | <0.05 | 8.0-11.0 | <0.08 | <0.35 | <0.15 | 1.5-3.0 | 17.0-25.0 | | | | | | | | |
| 974 | | 58.0-61.0 | | <0.005 | <1.50 | <0.50 | 15.5-17.0 | | 4.5-5.5 | <0.08 | <0.25 | <0.15 | 2.5-3.5 | rem | | | | | | | | |
| 976 | | 63.0-67.0 | | <0.005 | <1.50 | <1.00 | 19.0-21.5 | <0.05 | 3.0-5.0 | <0.08 | <0.20 | <0.15 | 3.5-4.5 | 3.0-9.0 | | | | | | | | |
| 978 | | 64.0-67.0 | | <0.005 | <1.50 | <1.00 | 24.0-27.0 | <0.10 | 1.0-2.5 | <0.08 | <0.50 | <0.15 | 4.0-5.5 | 1.0-4.0 | | | | | | | | |
| 982 | | 73.0-79.0 | | | <0.70 | | <0.50 | | 21.0-27.0 | | <0.50 | | | <0.50 | | | | | | | | |
| 984 | | rem | <1.50 | | <0.70 | | <0.50 | <0.10 | 26.0-33.0 | | <0.50 | | | <0.50 | | | | | | | | |
| 986 | | 60.0-70.0 | <1.50 | | <0.35 | | | <0.02 | 30.0-40.0 | | | | | <0.50 | | | | | | | | |
| 988 | | 56.5-62.5 | <5.50 | | <0.35 | | | | 37.5-42.5 | | | | | <0.25 | | | | | | | | |
| 988.4 | | rem | | | <0.35 | | | | 40.0-44.0 | | | | | 1.0-5.0 | | | | | | | | |
| | | rem | | | <0.35 | | | | 44.0-56.0 | | | | | 1.0-5.0 | | | | | | | | |
| 993 | Incramet 800 | rem | | 10.7-11.5 | 0.40-1.00 | | 13.5-16.5 | | <0.02 | | | <0.02 | <0.05 | | | | 1.0-2.0 | | | | | |
| 993.5 | | rem | | 9.5-10.5 | <1.00 | <0.25 | 14.5-16.0 | | <0.15 | | | | | 7.5-9.5 | | | | | | | | |
| 994 | | rem | | 0.50-2.00 | 1.0-3.0 | <0.50 | 1.0-3.5 | | <0.25 | | | 0.50-2.00 | | 0.50-5.00 | | | | | | | | |
| 995 | | rem | | 0.50-2.00 | 3.0-5.0 | <0.50 | 3.5-5.5 | | <0.25 | | | 0.50-2.00 | | 0.50-2.00 | | | | | | | | |
| 996 | C <0.05 | rem | | 1.0-2.8 | <0.20 | 39.0-45.0 | <0.20 | | <0.02 | | | <0.10 | <0.10 | <0.20 | | | | <0.20 | | | | |
| 997 | No 4.0-6.0 | >54.00 | | 0.50-3.00 | <1.00 | 11.0-15.0 | 4.0-6.0 | | <2.0 | | | | <1.00 | 19.0-25.0 | | | | | | | | |
| 997.5 | | 55.0-61.0 | | 0.25-3.00 | <1.00 | 17.0-23.0 | <5.0 | | 0.50-2.50 | | | | 0.50-2.50 | 17.0-23.0 | | | | | | | | |

These are specifications for reference purposes only, not samples for sale.

