

CHROME-MOLY PRODUCT SELECTION MATRIX

| Alloy Group | Materials to be Welded | Welding Process | Classification AWS/ EN | Product Name | Diameter mm (in) | Part Number | | |
|--|---|---|---|--|-----------------------|--|-------------|----------------|
| Grade 11 (Weld Metal -B2) 1¼ Cr + ½ Mo | ASTM A182 F11 & F12 A199 T11 A200 T11 A213 T11 & T12 A217 WC6 & WC11 A234 WP11 & WP12 A335 P11 & P12 A387 Gr 11&12 BS 1501 Gr 620 & 621 1502 Gr 620 1503 Gr 620 & 621 1504 Gr 621 3059 Gr 620/460 3100 Gr B2 3604 Gr 620/440 & 621 | GTAW | AWS A5.28: ER80S-B2 EN ISO 21952-B: 1CM | Lincoln® ER80S-B2 | 1.6 (1/16) | ED034343 | | |
| | | | | | 2.4 (3/32) | ED034344 | | |
| | | | | 3.2 (1/8) | ED034345 | | | |
| | | | | ER80S-B2 TIG | 2.4 (3/32) | TER80SB2-24 | | |
| | | | 3.2 (1/8) | TER80SB2-32 | | | | |
| | | | AWS A5.28: ER80S-B2 AWS A5.28M: ER55S-B2 ASME SFA-5.28: ER80S-B2 | SuperArc® Orbital TIG ER80S-B2 | 0.9 (0.035) | ED034465 | | |
| | | | | | 1.1 (0.045) | ED034466 | | |
| | | | | 0.9 (0.035) | ED034469 | | | |
| | | 1.1 (0.045) | | ED034470 | | | | |
| | | SMAW | AWS A5.5 : E8018-B2 H4R EN ISO 3580-A : E CrMo1 B 3 2 H5 EN ISO 3580-B : E 5516-1CM | CHROMET® 1X | 2.5 (3/32) | CHROMET1X-25-1 | | |
| | | | | | 3.2 (1/8) | CHROMET1X-32-1 | | |
| | | | | | 4.0 (5/32) | CHROMET1X-40-1 | | |
| | | | | | 5.0 (3/16) | CHROMET1X-50-1 | | |
| | | AWS A5.5: E8018- B2 H4R ASME SFA-A5.5: E8018-B2 H4R CWB/ CSA W48-06: E5518-B2 | Excalibur® 8018-B2 MR | 2.5 (3/32) | ED032878 | | | |
| | | | | 2.5 (3/32) | ED032881 | | | |
| | | | | 3.2 (1/8) | ED032879 | | | |
| 3.2 (1/8) | ED032882 | | | | | | | |
| 4.0 (5/32) | ED032883 | | | | | | | |
| GMAW | AWS A5.28: ER80S-B2 EN ISO 21952-B: 1CM | ER80S-B2 MIG | 0.8 (0.030) | MER80SB2-08 | | | | |
| | | | 0.9 (0.035) | MER80SB2-09 | | | | |
| | | | 1.0 (0.040) | MER80SB2-10 | | | | |
| 1.2 (0.047) | MER80SB2-12 | | | | | | | |
| FCAW | AWS A5.29: E81T1-B2C/M-H4 EN ISO 17634-B: T55T1-1C/M-1CM | CORMET™ 1 | 1.2 (0.047) | CORM1-12N | | | | |
| SAW | AWS A5.23: EB2R EN ISO: S CrMo1 | Lincolnweld® LA-92 (EB2) | 2.4 (3/32) | EDS30783 | | | | |
| | | | 3.2 (1/8) | EDS26960 | | | | |
| 4.0 (5/32) | EDS26961 | | | | | | | |
| EN ISO 14174: S A FB 1 | Lincolnweld® 822 | Flux | ED036223 | | | | | |
| Grade 22 (Weld Metal -B3) 2¼ Cr + 1 Mo | ASTM A182 F22 A199 T21 & T22 A200 T21 & T22 A217 WC9 A234 WP22 A335 P22 A387 Gr 21 & 22 BS 1501 Gr 622 1503 Gr 622 1504 Gr 622 3059 Gr 622/640 & 622/490 3100 Gr B3 3604 Gr 622 Cr-Mo-V Steels BS 1503 Gr 660 BS 1504 Gr 660 BS 3100 Gr B7 BS 3604 Gr 660 | GTAW | AWS A5.28: ER90S-B3 EN ISO 21952-B: 2C1M | Lincolnweld® ER90S-B3 | 1.6 (1/16) | ED034357 | | |
| | | | | | 2.4 (3/32) | ED034358 | | |
| | | | | 3.2 (1/8) | ED034359 | | | |
| | | | | ER90S-B3 TIG | 2.4 (3/32) | TER90SB3-24 | | |
| | | | 3.2 (1/8) | TER90SB3-32 | | | | |
| | | | AWS A5.28: ER90S-B3 AWS A5.28M: ER62S-B3 ASME SFA-5.28: ER90S-B3 | SuperArc® Orbital TIG ER90S-B3 | 1.1 (0.045) | ED034468 | | |
| | | | | | 0.9 (0.035) | ED034471 | | |
| | | | | | SMAW | AWS A5.5: E9018-B3 H4 EN ISO 3580-A: E CrMo2 B 3 2 H5 EN ISO 3580-B: E 6216-2C1M | CHROMET® 2X | 2.5 (3/32) |
| | | 3.2 (1/8) | | | | | | CHROMET2X-32-1 |
| | | 4.0 (5/32) | CHROMET2X-40-1 | | | | | |
| | | 5.0 (3/16) | CHROMET2X-50-1 | | | | | |
| | | AWS A5.5: E9015-B3 H4 EN ISO 1599: E CrMo2 B 22 H5 | CROMO E225 | 3.2 (1/8) | W100287666 | | | |
| | | | | 4.0 (5/32) | W100287667 | | | |
| | | | | 5.0 (3/16) | W100287668 | | | |
| | | | | AWS A5.5: E9018-B3 H4R ASME SFA-A5.5: E9018-B3 H4R CWB/ CSA W48-06: E6218-B3 | Excalibur® 9018-B3 MR | 2.5 (3/32) | ED032884 | |
| | | 2.5 (3/32) | ED032887 | | | | | |
| 3.2 (1/8) | ED032885 | | | | | | | |
| 3.2 (1/8) | ED032888 | | | | | | | |
| 4.0 (5/32) | ED032889 | | | | | | | |
| GMAW | AWS A5.28: ER90S-B3 EN ISO 21952-B: 2C1M | ER90S-B3 MIG | 0.8 (0.030) | MER90SB3-08 | | | | |
| | | | 0.9 (0.035) | MER90SB3-09 | | | | |
| | | | 1.0 (0.040) | MER90SB3-10 | | | | |
| | | | 1.2 (0.047) | MER90SB3-12 | | | | |
| FCAW | AWS A5.29: E91T1-B3C/M-H4 EN ISO 17634-B: T62T1-1C/M-2C1M | CORMET™ 2 | 1.2 (0.047) | CORM2-12N | | | | |
| SAW | AWS A5.23: EB3R EN ISO 24598-1: S CrMo2 | Lincolnweld® LA-93 (EB3) | 2.4 (3/32) | ED032185 | | | | |
| | | | 2.4 (3/32) | EDS30784 | | | | |
| | | | 3.2 (1/8) | EDS26962 | | | | |
| 4.0 (5/32) | EDS26963 | | | | | | | |
| EN ISO 14174: S A FB 1 | Lincolnweld® 822 | Flux | ED036223 | | | | | |
| Grade 22V (Weld Metal –Go) 2¼ Cr + 1 Mo + ¼ V | ASTM A182 F22V (forgings) A336 F22V (forgings) A542 D cl 4a (plates) A832 22V (plates) | GTAW | AWS A5.28: ER90S-G | CARBOROD W 225V | 2.4 (3/32) | W000289159 | | |
| | | SMAW | AWS A5.5: E9015-G EN ISO 1599: E Z B 22 H5 | CROMO E225V | 3.2 (1/8) | W100287673 | | |
| | | | | | 4.0 (5/32) | W100287674 | | |
| | | 5.0 (3/16) | W100287675 | | | | | |
| | | SAW | AWS A5.23: EG EN ISO 24598-A: SZ | OE-CROMO S225V | 2.4 (3/32) | OES225V-24-25VCI | | |
| | | | | | 3.2 (1/8) | OES225V-32-25VCI | | |
| 4.0 (5/32) | OES225V-4-300 | | | | | | | |
| EN ISO 760: SA FB 1 55 AC H5 | OP CROMO F537 | Flux | W000402695 | | | | | |
| Grade 5 (Weld Metal -B6) 5 Cr + ½ Mo | Plates ASTM A387 Gr 5 Pipe/Tube ASTM A199 Gr T5 A213 Gr T5 & T5b A234 Gr WP5 (fittings) A335 Gr P5 & P5b BS 3604 Gr HFS 625 & CFS 625 | GTAW | AWS A5.28: ER80S-B6 EN ISO 21952-A: CrMo5Si | 5CRMO | 2.4 (3/32) | T5CRMO-24 | | |
| | | | | | 3.2 (1/8) | T5CRMO-32 | | |
| | | SMAW | AWS A5.5: E8015-B6 H4 EN ISO 3580-A: E CrMo5 B 3 2 H5 EN ISO 3580-B: E 6216-5CM | CHROMET® 5 | 2.5 (3/32) | CHROMET5-25-1 | | |
| | | | | | 3.2 (1/8) | CHROMET5-32-1 | | |
| | | | | | 4.0 (5/32) | CHROMET5-40-1 | | |
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| Alloy Group | Materials to be Welded | Welding Process | Classification AWS/ EN | Product Name | Diameter mm [in] | Part Number | | |
|---|--|--|--|--------------|--|---|---|--|
| Grade 9 (Weld Metal -B8) 9 Cr +1 Mo | Plates ASTM A387 Gr 9 Pipe/Tube ASTM A199 Gr T9 A213 Gr T9 A234 Gr WP9 (fittings) A335 Gr 9 BS 3604 Gr CFS & HFS 629-470 CFS & HFS 629-590 | GTAW | AWS A5.28: ER80S-B8 EN ISO 21952-A: CrMo9 | 9CRMO | 2.0 [5/64] 2.4 [3/32] 3.2 [1/8] | T9CRMO-20 T9CRMO-24 T9CRMO-32 | | |
| | | SMAW | AWS A5.5: E8015-B8 H4 EN ISO 3580-A: E CrMo9 B 3 2 H5 EN ISO 3580-B: E 6216-9C1M | CHROMET® 9 | 2.5 [3/32] 3.2 [1/8] 4.0 [5/32] | CHROMET9-25-1 CHROMET9-32-1 CHROMET9-40-1 | | |
| | | GMAW | AWS A5.28: ER80S-B8 EN ISO 21952-A: CrMo9 | 9CRMO | 1.2 [0.047] | M9CRMO-12 | | |
| | | Grade 91 (Weld Metal -B91) 9 Cr +1 Mo + 1/4 V | ASTM A182/ A336 F91 (forgings) A213 T91 (seamless tubes) A217 C12A (castings) A234 WP91 A335 P91 (seamless pipes) A369 FP91 A387 Gr 91 (plates) BS 1503 Gr 91 3059-2 Gr 91 | GTAW | AWS A5.28: ER90S-B91 EN ISO 21952-A: W CrMo91 | 9CRMOV-N | 2.0 [5/64] 2.4 [3/32] 3.2 [1/8] | T9CRMOVN-20 T9CRMOVN-24 T9CRMOVN-32 |
| | | | | SMAW | AWS A5.5: E9015-B91 H4 EN ISO 3580-B: E 6216-9C1MV | CHROMET® 9-B9 | 2.5 [3/32] 3.2 [1/8] 4.0 [5/32] 5.0 [3/16] | CH9B9-25-1 CH9B9-32-1 CH9B9-40-1 CH9B9-50-1 |
| | | | | GMAW | AWS A5.28: ER90S-B91 EN ISO 21952-A: G 9C1MV | 9CRMOV | 1.0 [0.040] | M9CRMOV-10 |
| | | | | GMAW | AWS A5.28: ER90S-B91 EN ISO 21952-A: G CrMo91 | 9CRMOV-N | 0.8 [0.030] 1.0 [0.040] 1.2 [0.047] | M9CRMOVN-08 M9CRMOVN-10 M9CRMOVN-12 |
| | | | | FCAW | AWS A5.29: E91T1-B91C/M-H4 AWS A5.29M: E621T1-B91 C/M-H4 EN ISO 17634B: T69T1-1C/M-9C1MV | SUPERCORE™ F91 | 1.2 [0.047] | SCF91-12 |
| | | | | SAW | AWS A5.23: EB91 EN ISO 24598-A: S CrMo91 EN ISO 14174: S A FB 1 55 AC H5 | 9CRMOV-N LA490 | 2.4 [3/32] 3.2 [1/8] Flux | SA9CRMOVN-24 SA9CRMOVN-32 FXLA490SA-255RB |
| Grade 92 (Weld Metal -B92 or -G) 9 Cr + 1/2 Mo + 1/4 V + W + B | ASTM A182 F92 (forgings) A213 T92 (seamless tubes) A335 P92 (seamless pipes) A369 FP92 (forged & bored pipes) A387 Gr 92 (plates) | | | GTAW | AWS A5.28: ER90S-G EN ISO 21952-A: W ZCrMoWVNb 9 0.5 1.5 | 9CRWV | 2.0 [5/64] 2.4 [3/32] 3.2 [1/8] | T9CRWV-20 T9CRWV-24 T9CRWV-32 |
| | | | | SMAW | AWS A5.5: E9015-B92 H4 EN ISO 3580-A: E ZCrMoWVNb 9 0.5 2 B 3 2 H5 | CHROMET® 92 | 2.5 [3/32] 3.2 [1/8] 4.0 [5/32] | CH92-25-1 CH92-32-1 CH92-40-1 |
| | | | | SAW | AWS A5.23: EG [92] EN ISO 21952-A: S ZCrMoWVNb 9 0.5 1.5 EN ISO 14174: S A FB 1 55 AC H5 | 9CRWV LA490 | 2.4 [3/32] 3.2 [1/8] Flux | SA9CRWV-24 SA9CRWV-32 FXLA490SA-255RB |

Safety Data Sheets (SDS) and Certificates of Conformance are available on our website at www.lincolnelectric.com

FUMES AND GASES can be hazardous to your health.

- Fumes from the normal use of this product contain significant quantities of potentially hazardous compounds. See consumable product label/insert.
- Keep your head out of the fumes.
- Use enough ventilation and local exhaust to keep fumes and gases from your breathing zone and the general area.
- An approved respirator should be used unless exposure assessments are below applicable exposure limits.

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application.

CUSTOMER ASSISTANCE POLICY

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