

OK Autrod 16.95

A continuous solid corrosion resisting chromium-nickel-manganese wire for welding of austenitic stainless alloys of 18% Cr, 8% Ni, 7% Mn types. OK Autrod 16.95 has a general corrosion resistance similar to that of the corresponding parent metal. The higher silicon content improves the welding properties, such as wetting. The product is a modified variant of ER307, basically with a higher Mn content to make the weld metal less sensitive to hot cracking. When used for joining dissimilar materials the corrosion resistance is of secondary importance. The alloy is used in a wide range of applications across the industry such as joining of austenitic, manganese, work hardenable steels as well as armourplate and heat resistant steels.

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|---------------------------------------|---|
| Classifications Wire Electrode | SFA/AWS A5.9 : ER307 mod EN ISO 14343-A : G 18 8 Mn Werkstoffnummer : ~1.4370 |
| Approvals | CE EN 13479 DB 43.039.10 NAKS/HAKC 1.2MM VdTUV 05420 |

Approvals are based on factory location. Please contact ESAB for more information.

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| Alloy Type | Austenitic (18 % Cr - 8 % Ni - 7 % Mn) |
| Shielding Gas | M12, M13 (EN ISO 14175) |

Typical Charpy V-Notch Properties

| Condition | Testing Temperature | Impact Value |
|-----------|---------------------|------------------|
| As Welded | 20 °C (68 °F) | 130 J (96 ft-lb) |

Typical Weld Metal Analysis %

| C | Mn | Si | S | P | Ni | Cr | Mo | Cu |
|-----|-----|----|-------|-------|-----|------|-----|-----|
| 0.1 | 6.5 | 1 | 0.020 | 0.010 | 8.5 | 18.5 | 0.1 | 0.1 |

Typical Wire Composition %

| C | Mn | Si | Ni | Cr | Mo | Cu |
|------|-----|-----|-----|------|------|------|
| 0.08 | 7.0 | 0.9 | 8.1 | 18.7 | 0.20 | 0.10 |

Deposition Data

| Diameter | Current | Voltage | Wire Feed Speed | Deposition Rate |
|-----------------------|-----------|---------|-------------------------------------|---------------------------------|
| 0.8 mm (0.030 in.) | 55-160 A | 15-24 V | 4.0-17.0 m/min (157-669 in./min) | 1.0-4.1 kg/h (2.2-9.0 lb/h) |
| 0.9 mm (0.035 in.) | 65-220 A | 15-28 V | 3.5-18.0 m/min (138-709 in./min) | 1.1-5.4 kg/h (2.4-11. lb/h) |
| 1.0 mm (0.040 in.) | 80-240 A | 15-28 V | 4.0-16.0 m/min (157-630 in./min) | 1.5-6.0 kg/h (3.3-13. lb/h) |
| 1.2 mm (0.047 in.) | 100-300 A | 15-29 V | 3.0-14.0 m/min (118-551 in./min) | 1.6-7.5 kg/h (3.5-16. lb/h) |
| 1.6 mm (1/16 in.) | 230-375 A | 23-31 V | 5.5-9.0 m/min (217-354 in./min) | 5.2-8.6 kg/h (11.5-19. lb/h) |