



MIG M13/4

Classification

AWS A5.9 : ER410NiMo

ISO 14343-A : G 13 4

Description & Applications

Solid wire for GMAW of martensitic Cr-Ni stainless steels with a similar chemical composition like grade 410NiMo. Mainly used for maintenance and repair of casting parts...

Main applications: Repair of turbine and pumps...

Base materials

Martensitic stainless steels and castings:

| UNS | Alloy | EN 10088 | Material N° |
|--------|--------|----------------|-------------|
| J91540 | CA6-NM | G-X5CrNi13-4 | 1.4313 |
| S41500 | | X3CrNiMo13-4 | 1.4313 |
| | | G-X4CrNi13-4 | 1.4317 |
| | | G-X5CrNiMo13-4 | 1.4407 |
| | | X3CrNiMo13-4 | 1.4413 |
| | | G-X4CrNiMo13-4 | 1.4414 |

Typical Chemical Composition (%)

| | C | Si | Mn | Cr | Ni | Mo | Cu | Nb | P | S | Co |
|------|------|------|------|------|-----|------|------|------|------|------|------|
| Min | | | | 11.0 | 4.0 | 0.4 | | - | | | - |
| Max | 0.05 | 0.5 | 0.6 | 12.5 | 5.0 | 0.7 | 0.5 | - | 0.03 | 0.02 | - |
| Type | 0.02 | 0.45 | 0.50 | 12.3 | 4.2 | 0.50 | 0.08 | 0.01 | 0.02 | 0.01 | 0.05 |

All Weld Metal Mechanical Properties*

| | R _{p0.2} (MPa) | R _m (MPa) | A ₅ (%) | KV (J) |
|------|---------------------------|------------------------|----------------------|-----------|
| Min | 500 | 760 | 15 | - |
| Max | | | | - |
| Type | 750 | 840 | 19 | +20°C 120 |

* After PWHT 580°C / 8h

Welding Current & Instructions

| Welding mode | Wire Ø (mm) | Welding parameters | | Shielding Gas |
|--------------|-------------|--------------------|-------------|--|
| | | Current (A) | Voltage (V) | |
| GMAW = + | 0.8 | 70 - 180 | 18 - 26 | ISO 14175: M12 (Ar+0.5-5%CO ₂) M13 (Ar+0.5-3%O ₂) 15-20 l/min |
| | 1.0 | 80 - 220 | 18 - 28 | |
| | 1.2 | 150 - 320 | 22 - 32 | |
| | 1.6 | 220 - 380 | 24 - 34 | |

FT En-MN28-191118

Liability: This document is intended to assist the user in choosing the product. It is up to the user to verify that the chosen product is suitable for applications for which it is intended. The company FSH Welding Group reserves the right to alter specifications without prior notice of its products. The descriptions, illustrations and specifications are for reference only and cannot be held liable for FSH Welding Group. **Fumes:** Consult information on MSDS, available upon request.

www.fsh-welding.com - info@fsh-welding.fr