



MIG 20/25CU

Classification

AWS A5.9 : ER385

ISO 14343-A : G 20 25 5 Cu L

Description & Applications

Low carbon content solid wire for GMAW of totally austenitic stainless steels like Ur B6™, 904L.... Very good resistance to attacks by organic, phosphoric and sulphuric acids. High resistance against pitting and stress corrosion in chloride containing media.

Main applications: Petrochemical and chemical industries, pulp and paper industry.

Base material:

Fully austenitic stainless steel :

| UNS | Alloy | EN 10088 | Material N° |
|--------|-------|-------------------|-------------|
| N08904 | 904L | X1NiCrMoCu25-20-5 | 1.4539 |

Typical Chemical Composition (%)

| | C | Si | Mn | Cr | Ni | Mo | Cu | Nb | P | S | Co | N |
|------|-------|------|-----|------|------|-----|-----|------|-------|------|------|------|
| Min | | | 1.0 | 19.5 | 24.0 | 4.2 | 1.2 | - | | | - | - |
| Max | 0.025 | 0.50 | 2.5 | 21.5 | 26.0 | 5.2 | 2.0 | - | 0.02 | 0.02 | - | - |
| Type | 0.010 | 0.40 | 1.8 | 20.0 | 25.0 | 4.5 | 1.5 | 0.01 | 0.015 | 0.01 | 0.05 | 0.05 |

All Weld Metal Mechanical Properties

| | R _{p0.2} (MPa) | R _m (MPa) | A ₅ (%) | KV (J) |
|------|---------------------------|------------------------|----------------------|----------------------------|
| Min | 320 | 520 | 30 | - |
| Max | | | | - |
| Type | 380 | 550 | 35 | +20°C : 120 -196°C : 80 |

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 | |

Back shielding with Argon or Nitrogen gas or with copper backing support to avoid "back end" rust phenomena.

FT En-MN24-200325

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