

Technical data sheet

220916

DRILL-GUARD Non Mag



Founded in 1966, Welding Alloys Group is the global specialist in alloyed cored welding wires. Each of our DRILL-GUARD hardbanding wires are specifically formulated and produced in-house utilizing our own manufacturing technology and from extensive Oil & Gas industry knowledge.

DRILL-GUARD[®] the ultimate protection for your drill string and casing

DRILL-GUARD Non Mag sets the standard in joint protection for non magnetic drill collars and tools. The ultra low magnetism and permeability of the hardband exceeds the requirements set forth by the API. It is formulated for both buildup and / or hardbanding. During hardbanding it is recommended to use a non magnetic tungsten carbide drop for ultimate protection.

It is designed for the protection of standard austenitic stainless steels, chromium-manganese, and nitrogen bearing austenitic stainless steels. It may be applied over defect free laser clad, PTA (plasma transferred arc), or other traditional non magnetic hardbanding wires.

- Non magnetic austenitic deposit
- Metal cored = Increased productivity
- Non cracking, spalling, chipping, or flaking
- Corrosion resistant
- Good ductility
- Highest grade alloying elements
- Industry leading manufacturing and quality control

Welding Parameters

| | |
|--------------------|---|
| Wire Diameter | 1/16" (1.6mm) |
| Current / Polarity | DCEP / Reverse |
| Shielding Gas | 98% Ar - 2% CO ₂ |
| Gas Flow Rate | 35 CFH (16.5 LPM) |
| Welding Amps | 260 to 300 amps |
| Welding Voltage | 26 to 29 volts |
| Wire Stickout "S" | 0.75" to 1.20" (19mm to 30mm), from contact tip |
| Torch Angle "A" | 0 deg. to 15 deg. |
| Torch Offset "O" | 0.0" to 1.25" (0mm to 32mm), depends on O.D. |
| Preheat Temp | 100 °F to 150 °F (38°C to 66°C) |
| Interpass Temp | Maximum 500°F (260°C) |
| Cooling Rate | Air Cool |

* Circulate water through the I.D. to disperse the heat *

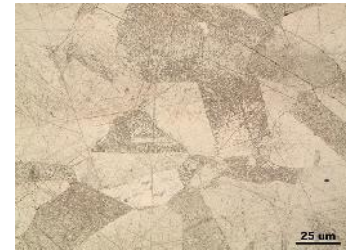
Typical Properties

Permeability 1.005

API max = 1.010

Magnetism $\pm 0.030 \mu T$

API max = $\pm 0.050 \mu T$



Fully austenitic grain structure



Support:

With over 50 years experience and operations in 28 countries, the Welding Alloys Group, fully supports their products and end-users by providing technical support within the field as well as in the office and training centers.

For technical expertise, contact:

sales@drill-guard.com

or

www.drill-guard.com

Welding products and techniques evolve constantly. All descriptions, illustrations and properties given in this data sheet are subject to change without notice and can only be considered as suitable for general guidance. This document is intended to help the user make the correct choice of product. It is his responsibility to assess its suitability for his intended application. DRILL-GUARD is a registered trademark of the Welding Alloys Group.