

Technical data sheet

EN050825GB

PREMIUM HARDBANDING CORED WIRES DRILL-GUARD Nb SEAMLESS



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

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

Best in Class: Welding operator appeal

- Needs neither special storage or re-drying prior to use
- Hermetically sealed and resistant to moisture pick up
- Ideal for outdoor jobs where climates can be challenging
- Optimal protection against cold cracking (HDM <4ml/100gr)
- Outstanding wire feeding properties
- No copper coating - better for the welder, better for the environment
- High quality overlay, smooth deposit
- Operator appeal
- High grade raw materials / alloying elements
- Excellent wear performance
- Niobium, vanadium, and titanium carbides
- Crack-free, non-spalling or flaking
- Re-applicable over itself or other non-cracking hardbanding materials
- Casing friendly

Hardbanding Parameters

Wire Diameter:	1/16" (1.6 mm)
Current / Polarity:	DCEP / Reverse
Shielding Gas(es):	98% Ar - 2% O ₂
Gas Flow Rate:	35 CFH (16.5 l/min)
Welding Current	260 to 305 A (290 A recommended)
Welding Voltage:	26 to 29 V (29 V recommended)
Stick-out:	0.75" to 1.25" (19 mm to 32 mm), from contact tip
Torch Angle:	5 deg. to 20 deg.
Torch Offset :	0.375" to 1.5" (10 mm to 38 mm), depends on O.D.
Oscillation Width:	0.75" to 1.0" (19 mm to 25 mm), depends on O.D.
Oscillation Speed:	45 to 65 cycles per minute
Interpass Temp:	Maximum 850°F (454°C)
May use a grinder on the surface after temperature is below 100°F (38°C)	

Performance data

API® Standard 7CW Wear Test
Casing wear Mohr T95: **6.25%**
Friction factor: **0.33**

ASTM G65-A abrasion test
Gram loss one-layer: **0.20 - 0.25 g**

Hardness one-layer: **59 - 61 HRC**



DRILL-GUARD Nb SEAMLESS
hardbanding deposit on a tool-joint

Support

With over 50 years experience and operations in 28 countries, the Welding Alloys, 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.