

**Technical  
data sheet**

240816

**PREMIUM HARDBANDING CORED WIRES****DRILL-GUARD Nb**

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<sup>®</sup>** the ultimate protection for your drill string and casing

**Best in Class: welding operator appeal**

**Excellent wear performance**

**Niobium, vanadium, and titanium carbides**

**Crack-free**

**Non-spalling or flaking**

**Re-applicable**

**High grade raw materials / alloying elements**

**Industry leading in-house manufacturing and quality control**



**API<sup>®</sup> Standard 7CW Wear Test**

Frictional Factor: 0.33

Hardband O.D. Loss: 0.002 in

Tool Joint Weight Loss: 0.010 lbs



Hardness: 58 to 61 Rockwell "C"

### Hardbanding Parameters

Wire Diameter:	1/16" (1.6mm)
Current / Polarity:	DCEP / Reverse
Shielding Gas(s):	98% Ar - 2% O <sub>2</sub>
Gas Flow: Rate:	35 CFH (16.5 LPM)
Welding Amps:	260 to 305 amps (290 amps recommended)
Welding Voltage:	26 to 29 volts (29 volts recommended)
Wire Stickout "S":	0.75" to 1.25" (19mm to 32mm), from contact tip
Torch Angle "A":	5 deg. to 20 deg.
Torch Offset "O":	0.375" to 1.5" (10mm to 38mm), depends on O.D.
Oscillation Width:	0.75" to 1.0" (19mm to 25mm), depends on O.D.
Oscillation Speed:	45 to 65 cycles per minute
Spindle Speed:	See Chart, depends on O.D.
Preheat:	See Charts, depends on O.D. and drilling tool
Interpass Temp:	Maximum 850°F (454°C)
* May use a grinder on the surface after temperature is below 100°F (38°C) *	

#### 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](mailto:sales@drill-guard.com)

or

[www.drill-guard.com](http://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. \* Fearnley Procter NS-1<sup>™</sup> Level 3, Uses: Initial Application of Tool Joints.