Duraband® NC
THE WORLD’S MOST TRUSTED HARDBANDING

HARDBANDING SOLUTIONS
by POSTLE INDUSTRIES
Why Duraband NC?

Oil and Gas Drilling is demanding more from drill pipe today than ever before. Extended Reach Drilling, Highly Deviated, H2S Sour Gas, Horizontal Drilling and HPHT wells are pushing the limits of current drill pipe design. Reliability of first application and re-application of hardbanding is vital for efficient offshore drilling and modern land drilling methods that require the drill string to be in constant use. Wells are being drilled deeper and faster today. The hardbanding must also be able to survive these environments, and successful re-application is essential. If it is not, re-application costs will be extremely high.

**FIELD-PROVEN PERFORMANCE**

**Maximum Tool Joint and Drill Pipe Protection**
Under actual downhole field testing, Duraband NC consistently provides superior wear resistance. Field and laboratory test reports available upon request.

**Excellent Casing Wear Protection**
Using the Mohr Engineering Casing Wear Test, Duraband has been tested under a variety of conditions and with differing casing materials. Duraband consistently shows that it provides excellent casing protection. Test results available upon request.

**Fatigue Resistance**
Each time drill pipe is put downhole, stress and fatigue are multiplied. Duraband NC has consistently proven its resistance to cracking and spalling. Test results available upon request.

**Multiple Re-applications**
Duraband can be re-applied over itself or other hardband products without removal. Independent Fearnley Procter NS-1™ testing has confirmed this. Re-application costs up to 75% less than competitive products. Test reports and certifications available upon request.

**Fearnley Procter NS-1™ Certified**
- New application
- Re-application over other existing products

**PERFECT FOR ALL DRILLING CONDITIONS…**
- Highly Deviated Wells and Extended Reach Drilling
- H2S Sour Gas Wells – All grades of sour gas drill pipes
- HPHT Wells
- Geothermal Drilling
- Horizontal Drilling

**...AND ALL HARDBAND LOCATIONS**
- Box and Pin
- HWDP Center Wear Pads
- Drill Collars
- RDT Wear Knot™
- Multiple Layers
- Completion Work String Tubing

Wear Knot™ is a trademark of RDT-USA
7 Good Reasons
Why More Drilling Professionals Trust Duraband NC

1. APPLICATOR SUPPORT
Over 200 applicators worldwide...On every continent!

2. TECHNICAL EXPERTISE & CUSTOMER SUPPORT
Anywhere in the world. Ten dedicated Technical Centers worldwide that support our applicators and the drilling industry.

3. UNIQUE APPLICATOR CERTIFICATION PROGRAM
We developed a three-step certification process to help identify applicator skill level and experience to assure quality work. A first for the industry. No other company comes close to our three-level program. All individual hardband applicators are tested and qualified. Individual certificates are issued along with the company certificate.

4. FIELD TRAINING
We provide extensive on-site field training anywhere in the world. No other company offers this hands-on service.

5. SITE INSPECTIONS
To be certain that hardbanding is being applied to specification, we will dispatch a quality assurance specialist to monitor the application of Duraband NC. No other hardband supplier does that.

6. TESTING
Duraband NC has been independently tested and approved through Fearnley Procter NS-1™ to apply over most competitive hardbanding products.
Duraband is the only product to carry this many approvals.

7. PROCEDURE DEVELOPMENT & IMPROVEMENT
For over 50 years, Postle Industries, Inc. has been designing hardfacing alloys and application procedures for many industries. Our R&D department has worked tirelessly to address the drill pipe wear and casing concerns of the drilling industry. As drilling continues to grow and drilling demands change, Postle Industries will be there to support, develop and deliver quality hardbanding products. Procedure Improvement is an ongoing process. Here are some recent developments:
- Patent Pending – CoolBand™ of tool joints to prevent damage to the IPC
- Developed a unique insulating wrap to slow the cooling process on hardbanded tool joints, HWDP and drill collars for strong, reliable application.
- Developed a unique procedure for hardbanding tool joints used with H2S Sour Gas
- Patent Pending – Ultraband™ NM for Non-Mag Drill collars

Approved Worldwide
Duraband is approved by Exxon, Shell, BP, TOTAL, ENI, BG Gas, Maersk Oil, Hess, Chesapeake, Chevron and many other operators. Drilling Contractor approvals include Transocean, Diamond Offshore, Noble Drilling, Atwood, Dolphin, Saipem, Seadrill, Ensign Drilling, Precision Drilling, ENSCO, KCA Deutag, Rowan Drilling, San Antonio Drilling and many others.

AVAILABLE FROM ALL MAJOR DRILL PIPE MANUFACTURERS WORLDWIDE

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A PROVEN TRACK RECORD

- Duraband’s parent company, Postle Industries, has been in business for nearly 50 years.
- Duraband has been approved by all the major oil companies, drilling contractors.
- All rental companies in the USA and most rental companies worldwide use Duraband.
- Duraband is supported by over 200 hardbanding applicators worldwide and our global network of Technical Centers.
- Duraband and its sister product Tuffband are the largest selling hardband in the world... over 500,000 tool joints annually!
- Available from all major drill pipe manufactures worldwide
Duraband®NC Extends Service Life of Work String Tubing in Shale Formations

Duraband NC, the most trusted name in drill pipe hardbanding protection since 2008, can also protect other oil and gas industry tubulars.

As well bores get deeper and horizontal laterals through shale formations extend their reach, the demands on work string tubing have grown exponentially. Extending the life of an asset is only a portion of the cost of managing this tubular. Shipping costs and downtime also impact the decision to protect work string tubing.

WHETHER IT IS THE APPLICATION OF DURABAND TO NEW WORK STRING TUBING OR REAPPLICATION OVER EXISTING HARDBANDS, DURABAND IS THE BEST CHOICE TO PROTECT YOUR TUBULAR ASSETS.

Hardbanding reduces torque and drag when drilling out frac plugs – especially within extended-reach laterals and deviated well profiles.

- No Cracks
- No spalling or separation from the base material
- No Heat Affected Zone (HAZ) hardness issues
- No dimensional changes in the connection after hardbanding the tube
- No distortion of the threads

Duraband has been thoroughly tested and evaluated by independent testing authorities for the application of hardbanding over work string tubing.

CASING-FRIENDLY...100% CRACK-FREE...100% REBUILDABLE
Stop Replacing Worn Work Tube…
Now You Can Economically Restore It!

Until recently, it was not possible to repair a work tube that, because of wear, had an undersized diameter connection. But now Postle Industries has developed a remarkable patent pending product and effective procedure to restore work string tubulars that have worn below the minimum diameter of the upset connection.

RESTORING WORK STRING CONNECTIONS WITH TUBE-WELD 110

Postle’s Postalloy® Tube-Weld 110 is specifically formulated to match the properties and strength of P-110 Grade Steel. With a slightly higher Rockwell hardness, the restoration could offer the upset connection a slightly higher wear resistance than the original steel.

- Identify work string tubes (through the inspection process) that have box and pin end connections that have fallen below the minimum required outside diameter. Connections must have enough thickness (1/16” [0.0625”] or greater) to accept the buildup application using low heat input welding process.
- Prepare the connection for welding
- Use Postalloy® Tube-Weld 110 and begin welding by utilizing Postle’s - Standard Operating Procedures
- Weld on the box end (and pin end if required) of the connection to restore lost material due to wear
- Mill the steel weld material to the originally specified connection diameter
- Re-cut the threads
- Install Duraband tube bands for added protection. Installing hardbands is recommended to protect a rebuilt upset connection.