HBS Bulletin by POSTLE Industries

Edition: July 2021





Reapplication

If you find yourself in a situation where reapplication is difficult, don't hesitate to give us a call. With our experience and past history of reapplying in many different hardbanding scenarios around the globe, we have developed procedures for difficult reapplications. There is no guarantee that we can reapply over every product, but we are typically successful. There are occasions where our standard procedures and weld parameters needed to be altered, so please call us for help.

We have a technical team ready to assist.



Postle Industries, Inc. 5500 W. 164th St. Cleveland, OH 44142 hardbandingsolutions.com

Can I apply Duraband®NC over this?

By far, the most common question the Postle Technical team gets frequently is, "Can I apply Duraband over this?". Before we answer this question, let's step back and review some hardbanding basics. The three requirements of hardbanding are; provide casing friendly characteristics, protect the tool joint from wear, and have the ability to be reapplied without requiring removal of the existing hardband. Most hardbanding materials on the market today, except tungsten carbide, are casing friendly. Most of today's hardbanding materials also protect the tool joint, however there is a wide range of effectiveness with regard to tool joint protection. Also, some hardbanding material can be reapplied without removal and repair. The big difference is how many times they can be reapplied without removal. Duraband is in a class of its own in this respect. This is one of the reasons most pipe owners insist on it.

Drill pipe, in the field, can have many different hardbanding materials on it. They are very often damaged, and frequently unidentifiable. So, back to the original question, "Can I apply Duraband over this?". To answer this question, we must first look at two characteristics of the hardbanding that is already on the pipe.

What is the existing hardbanding material?

It's important to remember that most hardbanding materials cannot be reapplied limitlessly. Duraband is one of the few that can. Most materials can only be reapplied a few times before they become brittle, cracked, spalled, or exhibit porosity. Once the old materials become compromised, they cannot even be reapplied over themselves. If the old material cannot be reapplied over itself, not much can be done except remove and rebuild it before hardbanding can be done. Some applications such as tungsten carbide in a hardband applied by the PTA process can't be applied over. Most materials do fairly well on the initial application when they have been diluted with the base tool joint material. Each reapplication lessens the amount of base material, and the hardbands comprise a higher percentage of the hardbanding material. That's why after only a few reapplications most materials don't perform well for reapplication.

Duraband has been evaluated by 3rd party testing organizations and maintains Fearnley Procter NS-1TM Certification for reapplication over many competitive products.

What is the condition of the existing hardbanding?

Unfortunately, if the existing hardbanding to be replied over is cracking, spalling, has existing voids and excessive porosity, no hardbanding material can be reapplied effectively. However, if the existing hardbanding is in good condition, there is a high probability of accepting the reapplication of a hardband over it. Especially with Duraband.

So, the final answer is that Duraband can be applied over the majority of existing hardbanding materials provided they aren't already compromised. Once that stage is reached the only solution is removal and rebuilding. Often the only practical way to find out if you can reapply over the existing material is to try a few bands to see how they come out.

