



MATERIAL AND APPLICATION TECHNOLOGY

MINTECHNOLOGIES.COM



What is DURA-BIDE?

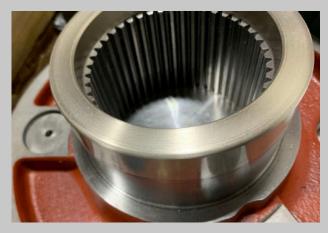
Introducing DURA-BIDE, our cutting-edge group of materials and application technologies designed to revolutionalize asset repair and reduce the cost per operating hour.

At HIH Technologies, we are dedicated to providing environmental solutions that extend the life of your assets while minimizing the need for virgin materials in new parts. Our DURA-BIDE product line offers a range of advanced applications and repair solutions tailored to meet your specific requirements, ensuring your components are not only restored to optimal performance but also contribute to a more sustainable future.



HVOF, PTA or LC DURA-BIDE materials

DURA-BIDE Collection



DURA-BIDE_54

Corrosion & Abrasion Resistant Alloy Utilized for dimensional repair (Seal & Bearing Fits)



DURA-BIDE_60

Mechanical Seal Surface Hard-Chrome Plating Replacement (Mechanical Seal Shaft)



DURA-BIDE_68

Seal Surface-Hard Chrome Replacement Technology (Transmission Yoke)



DURA-BIDE_56

Bearing and Bushing Repair Area Alloy Metallurgical Fusion Process (Pivot Shaft)



DURA-BIDE_66

Chrome Plating Replacement Technology (Hydraulic Cylinder-Front Suspension Rod)



DURA-BIDE_79 PLUS

Composite Alloy for Slurry Abrasion/Erosion

HIH-CARBIDE HARD-FACING

We are proud to present HIH–CARBIDE Hard Facing Flexible Cord and Spray & Fuse Powders. These materials utilize Cast Spherical or Crushed Tungsten Carbide in Nickel Self Fluxing matrix alloys varying in hardness from HRC 20 – HRC 60. Tried, Tested and Proven in abrasion, erosion, corrosion, and impact applications involving Mining, Oil & Gas, Agriculture, Solids Separation, Tunnelling, Industrial Mixing systems, Construction Equipment, etc.





Hard-Facing Flexible Cord

HIH-CARBIDE Cord is a flexible cord composed of fused Tungsten Carbide grains mixed in a Nickel base matrix, hardness 40 HRC. Fused Tungsten Carbide grains are cast or spherical particles.

HIH-CARBIDE cord is applied using an oxyacetylene torch. It is advisable to spray first an underlayer of powder to avoid oxidation of the parts.



Hard-Facing Powders

HIH-CARBIDE carries two ranges of Powders:

- Nickel-based Hardfacing powders with a hardness from 20 to 60 HRC.
- Nickel-based Hardfacing powders premixed with crushed or pellets fused Tungsten Carbide with a hardness of 60 HRC.



Application Torch Kits

Our DB Industrial Torch case is multi-functional.
Apply thin-thick deposits of flexible cord and spray & fuse powders.

DURA-BIDE 90_C



Our upcycled wear resistant coating technology, introduces little to no heat input during application, introduces no thermal stress to the base material and has a mechanical locking mechanism to reduce the risk of shear failure between coating and substrate. It also allows us to perform multiple repairs over the DB 90_C after the first repair has been completed.

We are proud of the fact that this material is manufactured from Upcycled ceramic materials that are traditionally discarded to landfill. This material technology is engineered to extend the durability of your equipment, helping us to progressively reduce our environmental impact one repair at a time.



DURA-BIDE 90_C Case Study: Ceramic Lined Elbows

Situation:

Erosive wear during slurry pumping activity in a gold mine.

Task at Hand:

Finding a replacement for ceramic tiles in a slurry elbow.

Action Plan:

Utilizing the old ceramic tiles from the worn our slurry elbow for our DURA-BIDE_90C material, we rebuild the elbow back to nominal size.

The Results:

We successfully reclaimed an asset that had previously been written off and restored it to operating condition. Thanks to our DURA-BIDE 90_C application, the asset can now continue to operate for an additional year beyond its original lifespan.





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