

Borocoat® – Diffusion surface treatment for valves and fittings



THE PROBLEM

Within the safety relevant application ranges of chemical plants, gas and oil production as well as power plant technology, there are high requirements towards the functionality and the operational safety of valves, gate and regulating valves.

The conveyance of abrasive and corrosive medium in combination with high pressure and temperatures necessitates extreme demands on the valve construction and material. This is where a wide range of materials such as carbon steels & stainless steels, or further yet, special materials consisting of nickel-based and titanium alloys apply.

For complex strained components the pure material characteristics do not suffice in order to resist the wear. Valves, gate – and regulating valves sustain damage by abrasion and adhesion, metallic seals are fretted and cannot be loosened – a latent safety risk in every operation!

OUR SOLUTION – YOUR BENEFIT

For these particular cases boronizing under the Borodur®-procedure is an excellent possibility to reduce the wear, improve the product quality, ensure the operational safety and significantly reduce the costs for production, operation and facilities management.

No other diffusion process for surface hardening achieves such an improvement in the mechanical characteristics as to hardness and wear protection in combination with excellent high-temperature durability.

Let us show you how you can ensure the essential competitive advantage for your product by using our know-how!

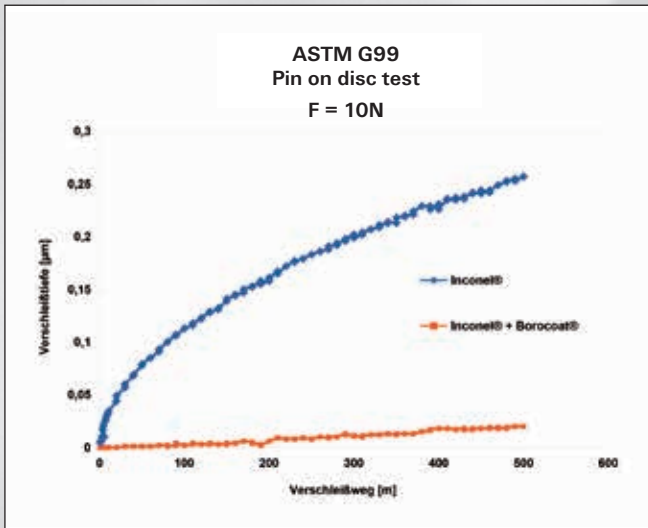


FOR MORE INFORMATION AND CONSULTING

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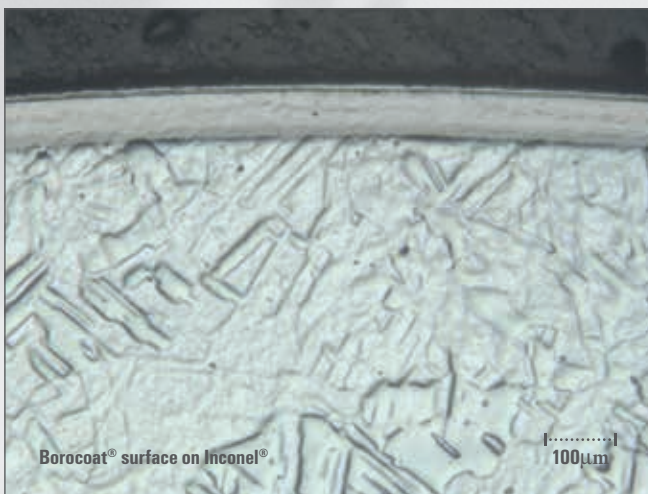
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PROPERTIES

- High surface hardness
- Layer thickness 10-60 µm
- Extreme wear resistance in highly abrasive applications
- Extreme consistency when experiencing adhesive wear
- Prevention of plucking or cold-welding of metal-to-metal connections
- High thermal resistance
- Consistent to hot corrosion
- Low subsequent work



MATERIALS

- Steels, stainless steels
- Cast iron
- Powder-metallurgical steels
- Nickel-based alloys (Nimonic®, Inconel®, Hastelloy®, Haynes®)
- Stellite®
- Titanium



APPLICATIONS

- Ball valves
- Slide plates
- Metallic seals and seats
- Conveyor technique
- Steam regulation fittings

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