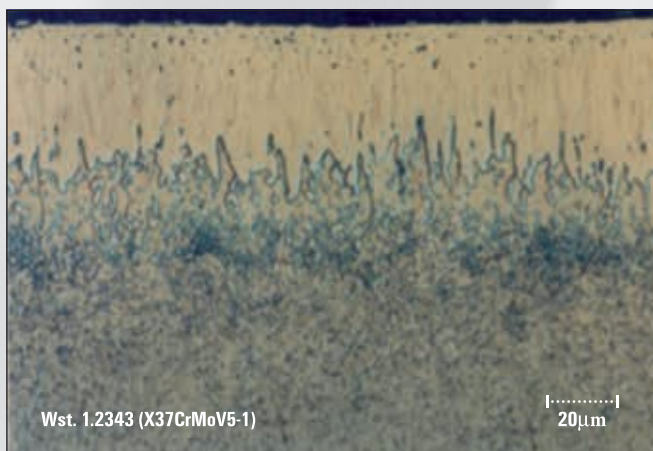
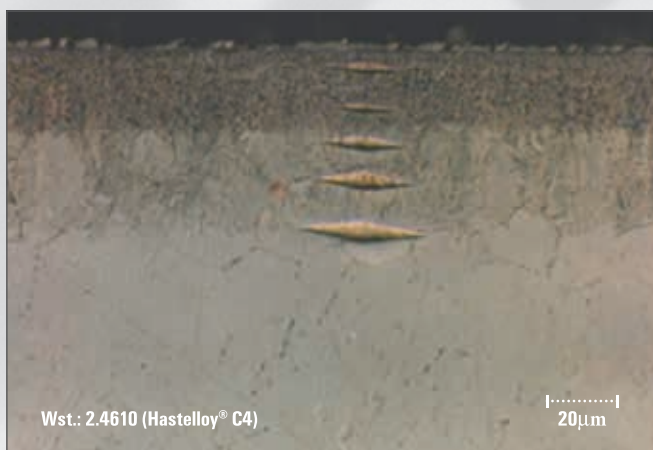


# Borocoat®

## Diffusion treatment

### PROPERTIES

- High layer hardness of 1600 – 2800 HK (depending on the base-material)
- High hardness even on unalloyed steels
- Layer thickness 10 – 250 µm
- High wear resistance, high resistance to adhesion (cold welding) and abrasion
- Excellent thermal stability
- Excellent self-lubricating properties even on high temperature
- Superior bonding strength (adhesion) compared to conventional coatings due to the diffusion structure
- High resistance to molten metals (Al, Zn) and acids (HCl, H<sub>2</sub>SO<sub>4</sub>, H<sub>3</sub>PO<sub>4</sub>)



### APPLICATIONS

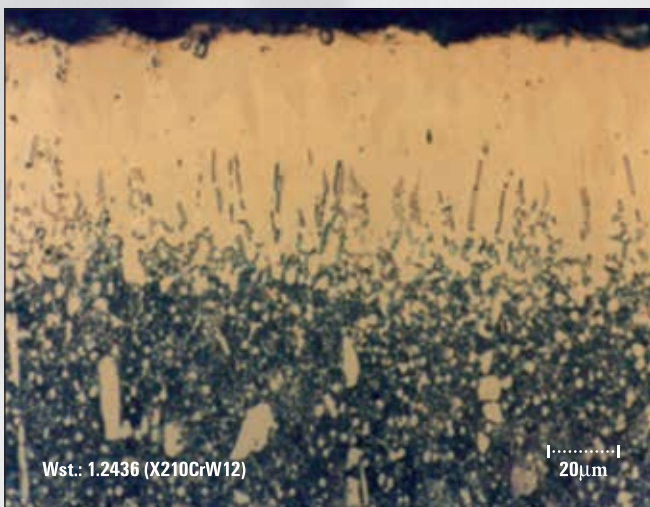
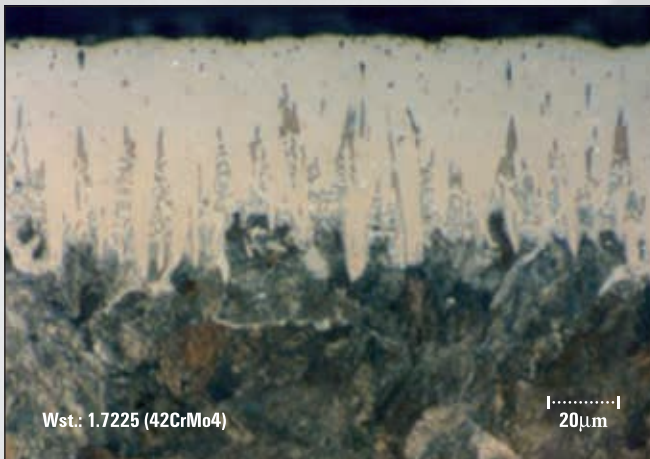
Borocoat® diffusion coatings are extremely multifunctional and are applied within several industry sectors in order to improve friction properties and lower adhesive and abrasive wear.

Proven and tested applications:

- Automotive components (turbo charger engineering)
- Oil and gas industry (valves and accessories)
- Power plant engineering
- Toolmaking and metal forming technology
- Plastics processing
- Glass production
- Gear manufacturing
- Components for textile machinery
- Aluminium processing
- Mechanical engineering

# Borocoat®

## Diffusion treatment



### PROCESS

The Borocoat® surface treatments are carried out in a thermochemical process based on BorTec's unique Borodur®-technique. Boron atoms are diffused into the surface, forming an extremely hard diffusion layer. The partial treatment of functional surfaces, inner holes and complicated shapes is possible without difficulty.

### MATERIALS

- Unalloyed and low alloyed steels
- Stainless steels (austenitic, ferritic, martensitic, duplex)
- Tool steels (hot-work, cold-work, HSS)
- Powder-metallurgical steels (CPM®, ASP®-steels)
- Nimonic®, Inconel®, Hastelloy®, Heynes®, Stellite®\*

\* CPM®, ASP®, Nimonic®, Inconel®, Hastelloy®, Heynes®, Stellite® are registered trade marks from various other companies not registered by BorTec.