

Technical Data Sheet Metal-to-Metal Ball Valve sealing system

Coating Designation ATEC 231

Description Hardmetal Coating based on Chromium Carbide-

Nickel/Chromium produced by High Velocity Oxy-Fuel

spraying

Composition Cr₃C₂-NiCr 75/25

Hardness 900-1100 HV_{0.3}

Porosity < 2 %

Coating Thickness 150-200 um

Temperature Limitation max. 650 °C

Bond Strength > 70 MPa (EN 582)

Mechanical and

Excellent wear resistance especially at elevated temperatures. **Chemical Resistance** Suitable for protection against abrasion, erosion, sliding wear

and fretting. High corrosion and oxidation resistance.

Resistant to many acids and alkaline solutions and to hot gas

corrosion.

General Properties The coating is applied by the High Velocity Oxy-Fuel

> spray process and is characterized by high hardness, density and bond strength. The coating can be applied on nearly all industrial used metallic materials. Due to the relatively low thermal load during the coating process no impairment or metallurgical transformation of the base material arises. Smooth surface finish is achieved by

grinding and lapping or polishing.