



Armaturenbau und -Technik GmbH

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	Cr ₃ C ₂ –NiCr 75/25
Hardness	900–1100 HV _{0,3}
Porosity	< 2 %
Coating Thickness	150–200 µm
Temperature Limitation	max. 650 °C
Bond Strength	> 70 MPa (EN 582)
Mechanical and Chemical Resistance	Excellent wear resistance especially at elevated temperatures. 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.