



Armaturenbau und -Technik GmbH

Technical Data Sheet

Metal-to-Metal Ball Valve sealing system

Coating Designation	ATEC 433
Description	Nickel-Hardalloy reinforced by Tungsten Carbides produced by the spray and fuse process
Composition	Ni 17Cr 4Fe 4Si 3.5B 1.0C + WC-Co 88/12
Hardness	750–850 HV _{0,3} (62–65 HRC)
Porosity	nearly non porous
Coating Thickness	0,3-0,8 mm
Temperature Limitation	max. 400 °C
Bond Strength	metallurgical bond to the base material
Mechanical and Chemical Resistance	Superior resistance to abrasion, particle erosion and fretting. Due to the carbide reinforcement the coating is suitable for the most severe service. High strength also at elevated temperatures. Good corrosion resistance.
General Properties	As a result of the spray and fuse process the coating is dense and has very high hardness and bond strength. The coating can be applied on most stainless, duplex and low carbon steels and to special alloys like hastelloy or inconel. Smooth surface finish is achieved by grinding and lapping or polishing.