

ARK 40 arc spray coating has high bonding strength. It can replace aluminum bronze and expensive nickel aluminum, molybdenum and other buffer layers. It is inexpensive and has a certain degree of wear resistance. Since its introduction in the market in 1996, it has been widely used by customers and has earned positive feedback. [Patented product: Hot-sprayed wire ZR96120778.7 (the first wire material patent in China containing rare earth elements).]

Main features

- General abrasion resistance, suitable for lubricated metal-to-metal wear
- High bonding strength
- Useful for spraying large, thick coatings

Typical applications

- Buffer layers
- Engine crankshaft and bearing housing repair
- Restoring dimensions of part surfaces

Chemical composition of deposited metal (%)

C	Cr	Al	Ni	Mo	V	Fe
<1.0	<5.0	<5.0	<10.0	<2.0	<1.0	Balance

Mechanical properties

Bond Strength (MPa) Acc. to ASTM C633-01	Micro-hardness (HV 0.1, kg/mm ²)
>55 (Low carbon steel substrate)	380-420

Coating properties

Density (g/cm ³)	% Prosoity	% Deposition efficiency
7.48	<5	70-85

Recommended spraying parameters

Diameter: in (mm)	Air pressure (MPa)	Current (A)	Voltage (V)
1/16 (1.6)	0.5-0.6	160-220	28-34

Diameters and packaging

Diameter: in (mm)	Packaging: lb (kg)
1/16 (1.6)	27.5 (12.5) (Vacuum pack spool)

Metallographic photos



100x



200x

Spray coating cross-section microstructure: