

SP (A) 80/20 NiAl

CATEGORY Metal spray wires

TYPE Composite spray wire for bond coatings equivalent to Metcoloy 405

APPLICATIONS SP 80/20 NiAl is widely used as a bond coat for subsequent thermal spray layers and as a one step build up material for dimensional restoration of aircraft engines.

PROPERTIES SP 80/20 NiAl is a cored wire specifically designed for both, arc spraying and flame spraying. It is selfbonding to most materials and requires minimal surface preparation. Bond strengths in excess of 9000 psi can be achieved on grit blasted surfaces. SP 80/20 NiAl exhibits good resistance to high temperature oxidation and abrasion, and excellent resistance to impact and bending. SP 80/20 NiAl can be machined and ground to a finish of 5 micro inches.

CLASSIFICATION AWS Ni80-Al20 deposit

APPROVALS CE approved

WELDING POSITIONS:



PURE WIRE ANALYSIS

Ni	Al	Si	Cr	Cu	V
80	20				

MECHANICAL PROPERTIES

Heat Treatment	Rp0,2 (N/mm ²)	Rm (N/mm ²)	A5 (%)	Impact Energy (J) ISO-V			Hardness Rockwell B
				-20°C	-40°C	-60°C	
							60-75

SPRAY PARAMETERS / PACKING

Spray parameters					Packing	
D (mm)	Voltage (V)	Current (A)	distance (cm)	air pressure (bar)	spool type	kg spool
1,6	29-32	100-200	8-15	3.5-4.2	K-300	15
3,17	29-34	160-300	10-18	3.5-4.2	H-420	25

REDRYING TEMPERATURE not required

PREPARATION Recommended method of preparation is, to grit blast with 24 mesh aluminum oxide, rough grind, or rough machine in a lathe.