NiAg Carbide

SPECIFICATION/CLASSIFICATION: Internal

Description/Application:

NiAg Carbide is a composite rod comprised of nickel silver alloy and 60-70% suspended tungsten carbide chips providing excellent wear resistance. This matrix yields ultimate outstanding quality needed in many abrasion/impact wear and cutting/ drilling tools applications. Often used on earth moving, oilfield, mining, drilling/milling/boring/cutting tools and many other applications. Make sure the surface is free of contaminates and clean before applying bronze brazing flux. Concentrating heat on base metal with a neutral flame while until you reached a dull red to about 1650F and deposit a thin layer Ni-Ag alloy with a circular rubbing motion. Follow the tinning application with the same technique while using the end of the NiAg rod to arrange carbides or add flux as required for your application.

Typical Filler Rod Chemistry in weight percent: NiAg Matrix and carbide listed separately

Cu	Ni	Si	Zn			W	Co	C	Fe/Ni
48	*10*	*.2*	*balance*	◀ *Ni-Silver*	*Tungsten Carbide* ▶	*90.0*	*10.0*	*6.0*	*2.0*

Typical Mechanical Properties of Nickel Silver:

Tensile Strength (psi)	up to 120,000	Yield Strength (psi)	65-75,000
Ni-Silver hardness	220 BHN	Carbide hardness	RA 89-92

Physical data: on Ni-Silver

Solidus	1690°F (921°C)
Liquidus	1715°F (935°C)

Rod size: 1/2” x 3/8 x 18” long

Particle SIZES: 3/16” x 1/8” or 3/16” x 1/4”

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