



TECHNICAL DATA SHEET

Diamond Carbide 60 V Grade - Nickel Based Alloys Blended Carbide Composite Hardfacing Rod *Hard Surfacing Maintenance and Repair* *Maximum Resistance to Minimal Impact and Excellent Wear*

DC60V Grade hardfacing rods are a special blend of high abrasion resistance nickel, chromium, boron alloy matrix and sintered tungsten carbide (SWC). Nickel, chromium, boron alloy offers excellent resistance to the effects of corrosion, erosion, high temp oxidation, and abrasion wear. SWC's anti-wear and cutting characteristics significantly increase part life and assist in the cutting shredding action.

The low melting point (1900°F) of nickel, chromium, boron enables overlays to be applied with minimal dilution and base metal distortion. Alloy is self-fluxing and is easily applied by OAW (Oxyacetylene), GTAW (Tig) and SMAW (Coated Electrodes), on clean base metals.

Alloy can be applied to most base metals: cast irons, steels, stainless steels, nickel and cobalt alloys and others, thereby eliminating a confusing selection process.

Unique sintered powder metallurgy process allows for manufacture of diameter rods from 5/16" (.3125") down to 1/8" (.1250") diameter.

Applications

Drill stabilizers, cutting and shredding blades, digging tool blades, wood gripping tools and any cutting or shredding application that requires minimal impact resistance and excellent wear resistance.

Matrix	Rockwell "C" Scale	Nominal Chemistry		Melting Temperature
VERSAAlloy® 60 AWS A5.13 NiCr-C	57-61	C 0.74 Cr 14.00 Si 4.55	B 3.5 Fe 4.5 Ni Bal	1900°F

Welding Techniques and Procedures

In all cases, minimum dilution processes are recommended to obtain maximum wear resistance. The surface to be hardfaced should be clean of grease, oil, rust and other contaminants by grinding the base metal.

OAW (Oxyacetylene) – Use a neutral flame (2 to 3 x "feather"), preheat base metal and bring to a "red" heat at the starting point of your weld, rods will then flow freely when introduced into the torch flame.

GTAW (TIG) - Use DC electrode negative (straight polarity) with largest Tungsten electrode possible to minimum tungsten contamination of the weld puddle.

SMAW (Coated Electrodes) - Can be run either AC or DC reverse polarity.

Call Rankin PMA at (800) 854-2159 for more information.



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