



TECHNICAL DATA SHEET

Diamond Carbide 60 D Grade - Nickel Based Rods

Blended Carbide Composite Hardfacing Rod

Hard Surfacing Maintenance and Repair

Maximum Resistance to Low Impact and Severe Abrasion

DC60 D Grade hardfacing rods are a special blend of nickel, chromium, boron alloy matrix, and finely powdered cast tungsten carbides (CWC). Nickel, chromium, boron alloy offers excellent resistance to the effects of corrosion, erosion, and high temp oxidation, abrasion wear and impact. CWC's wear resistance characteristics are excellent, significantly increasing part life.

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), SMAW (Coated Electrodes), on clean base metals.

Alloy can be applied to most base metals: cast irons, steels, stainless steels, nickel, 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 1/16" (.0625") diameter.

Applications

For pulp knives, ensilage cutter bars, rollers/crushers and any agricultural application which resists severe metal to earth abrasion, requiring low impact 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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