CEWELD NiCrBSi 4 Tig (Colmonoy 4)

certilas® THE FILLER METAL SPECIALIST

TYPE

Nickel based Tig filler metal for hardfacing and overlay applications.(UNS N99644)

APPLICATIONS

CEWELD NiCrBSi 4 Tig (Colmonoy 4) offers outstanding metallurgical and physical properties making them ideally suited to solving wear mechanisms such as abrasion, erosion, corrosion and high-temperatures encountered in service.
CEWELD NiCrBSi 4 Tig (Colmonoy 4) is a nickel-base alloy containing chromium boride. It is recommended for hard surfacing parts to resist wear, heat, corrosion and galling. Deposits, which have only moderate hardness (Rockwell C 35-45), can be machined with carbide tooling. Is highly resistant to semi-molten glass. It is normally used in the as-cast condition.

PROPERTIES

CEWELD NiCrBSi 4 Tig (Colmonoy 4) offers superior wear protection, retaining its hardness up to 300°C (600°F) with significant resistance to oxidation. A good combination of impact resistance and wear resistance.It is resistant to atmospheric, salt water, and salt spray corrosion, and has excellent oxidation resistance up to its melting range. It retains satisfactory performance in many organic acids, but high corrosion rates are observed in hot, strong inorganic acids.

CLASSIFICATION

AWS A 5.21: ERNiCr-A

SUITABLE FOR

UNS N99644, DELORO 40 Alloy, Colmonoy 4
Aircraft gas turbines, steam turbine powerplants, turbochargers and valves in reciprocating engines, prosthetic devices, heat treating equipment, pollution control equipment, coal gasification and liquefaction systems, and components in pulp and paper mills.

APPROVALS

WELDING POSITIONS

TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%)

C	Ni	Cr	B	Si	Fe
0.4	Rem.	10	2.4	2.1	2.8

MECHANICAL PROPERTIES

Heat Treatment	$R_{P0,2}$ (MPa)	Rm (MPa)	A5 (%)	Hardness
As Welded				40 HRc

REDRYING

Not required

GAS ACC. EN ISO 14175

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