CEWELD®

Nicro FM 53MD Tig

CATEGORY GMAW-GTAW Solid wires

TYPE Nickel based filler metal against extreme temperature conditions.

APPLICATIONS Nicro FM 53MD is used for the gas-tungsten-arc and gas-metal-arc welding of INCONEL alloy 693, and the overlaying of carbon steels and stainless steels to provide a nickel-chromium-aluminum alloy corrosion resistant surface.

PROPERTIES Excellent welding properties with high build-up capacity and low dilution rate. Excellent resistance against temperature cycling conditions exeeding 1200^{o}C and carburized medias. Excellent fatique strenght and creep properties. The high chromium and aluminum levels provide excellent resistance to metal dusting in chemical and petrochemical applications. The product also provides excellent resistance to carburization, sulfidation, and other high temperature corrosion forms Welding similar alloys that have to resist extreme high temperature and for cladding steels or stainless steels to obtain a high temperature resistant surface against oxidation.

CLASSIFICATION

AWS	A 5.14: ER NiCrFeAl-1 UNS: N06693
EN ISO	18274:
DIN	1736: SG NiCr29FeAl (mod)

SUITABLE FOR Cladding against high temperature, radiant heater tubes, furnace rolls, muffles in bright annealing furnaces (H_2 atmosphere), rotary kilns, pipe hangers, waste gas components, hydrogen production, methanol and ammonia synthesis, Inconel alloy 693

APPROVALS CE approved

WELDING POSITIONS:

FILLER METAL ANALYSIS %

C	Cr	Ni	Mn	Si	Ti	Fe	Al	Cu	Nb+Ta
<0,15	27-31	Rem	<1,0	<0,5	<0,50.39	2,5-6,0	2,5-4,0	<0,3	0,5-2,5

MECHANICAL PROPERTIES (TYPICAL)

Heat Treatment	$R_{P0,2}$ (N/mm^2)	Rm (N/mm^2)	A5 (%)	Impact Energy (J) ISO-V RT	-40°C	-60°C	Hardness HRc / HV
as welded		760	45				

WELDING PARAMETERS / PACKING

Welding Parameters		Packing (kg)	
D (mm)	Current (A) DC-	single	master
1.6 x 1000	30-70	4,54	22,7
2.4 x 1000	70-150	4.54	22.7
3,2 x 1000	120-250	4.54	22.7

REDRYING TEMPERATURE not required

GAS ACC. EN ISO 14175: I1, R1