

GRIDUCT 98D1

IDENTIFICATION

Griduct 98D1, E 9018-D1

CLASSIFICATION

AWS/SFA 5.5: E 9018-D1, BS 2493: MnMoBH,
DIN 8529: ESY 5564 Mn MoB, IS 1395: E 63 BD126

DESCRIPTION

Medium coated, hydrogen controlled electrode depositing Mn - Mo low alloy weld metal having tensile strength > 620 Mpa. The weld deposit is nickel free and therefore satisfy NACE MR-01 - 75 in sour service requirements intended to ensure resistance to sulphur induced stress corrosion cracking combined with good sub-zero notch toughness.

WELD METAL ANALYSIS (RANGE) %

C	Si	S	P	Mn	Mo	Ni
0.10 max	0.25 - 0.60	0.025 max	0.025 max	1.00 - 1.75	0.25 - 0.45	0.90 max

MECHANICAL PROPERTIES (RANGE)

UTS (MPa)	PS (MPa)	EL (%) (L=4D)	CVN Impact Value	
			Temp	Joules
630 min	550 min	20 min	-20°C	60 - 100
			-51°C	30 - 70

TYPICAL APPLICATIONS

- For welding low alloy steel AISI 4130, 4140 for the repair and fabrication of manganese molybdenum castings.
- AISI 4130, castings to ASTM A 487 2 A-B-C Fabrication of higher strength steels for off-shore oil well head process pipe work and fittings.
- Repair of medium strength low alloy steel castings. fabrication of steel to IS 8500-91 Gr 540B, 570B, 590B, IS2002-92Cr3

HARDNESS OF THE WELD METAL : 210 Brinell max

ASME SECTION IX QUALIFICATION : QW- 432 F No.4, QW-442 A No. 11

CORROSION TEST :

Passes SSCC test as per NACE standard TM-01-75. Passes HIC test as per NACE standard TM-02-84

REDRYING TEMPERATURE : 300°C / 2 hrs

PWHT :

The PWHT requirements will depend on a number of factors including, base material, property requirements, and need to conform to NACE etc. Temperatures will normally be about 620°C.

WELDING POSITION :

**PACKING PARAMETERS**

Size (mm)	Length (mm)	Amps AC 70-OCV / DC (+)	Packing / Box (kg)	Packing / Box (Pcs)
2.5	350	60 - 85	5 x 4 = 20	160 x 4 = 640
3.15 / 3.20	450	100 - 130	5 x 4 = 20	110 x 4 = 440
4	450	140 - 180	5 x 4 = 20	70 x 4 = 280
5	450	180 - 220	5 x 4 = 20	45 x 4 = 180