

GRIDUCT 108D2

IDENTIFICATION

Griduct 108D2, E 10018-D2

CLASSIFICATION

AWS/SFA 5.5: E10018D2, DIN 8556 ESY 6264 MnMoB,
BS 2493 (1985): 2Mn MoBH

DESCRIPTION

A basic coated hydrogen controlled electrode of high strength, low alloy steels. It deposits 1.8% Mn - 0.4% Mo weld metal which provides increased strength which ensures conformance to NACE requirements and high impact strength at subzero temperature. The deposited weld metal is of X-ray quality. Deposited weld metal has resistance to sulphide induced stress corrosion cracking in sour service and satisfy NACE MR-01-75 requirements.

WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	S	P	Ni	Mo
0.05 - 0.15	1.65 - 2.00	0.20 - 0.8	0.03 max	0.03 max	0.90 max	0.25 - 0.45

MECHANICAL PROPERTIES (RANGE)

UTS (MPa)	YS (MPa)	EL (%) (L=4D)	CVN Impact Value	
			Temp	Joules
690 min	600 min	16 min	-30°C	48 - 100
			-51°C	27 min

TYPICAL APPLICATIONS

- For welding low alloy steel AISI 4130, 4140 for the repair and fabrication of manganese molybdenum castings.
- Pressure vessels, forgings, castings,
- ASTM A 302 Grade B, ASTM A 336 Grade F 30
- ASTM A 487 Class I N, I Q, 2N, 2Q, En 19
- DIN 42CrMo4, 34CrMo4
- For offshore oil head process pipe work and fittings

ASME SECTION IX QUALIFICATION : QW 432 F NO: 4, QW 442 A NO: 11

MICROSTRUCTURE : In SR condition, microstructure consists of tempered bainite.

DIFFUSIBLE HYDROGEN : Max. 5ml / 100 gm.

HARDNESS OF THE WELD METAL : 225 Brinell Max.

RECOMMENDED PREHEATING & INTERPASS TEMPRATURE : 93°C - 107°C

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 / DC (+)	Packing / Box (kg)	Packing / Box (Pcs)
2.5	350	60 - 95	5 x 4 = 20	160 x 4 = 640
3.15 / 3.20	450	80 - 120	5 x 4 = 20	110 x 4 = 440
4	450	130 - 180	5 x 4 = 20	70 x 4 = 280
5	450	160 - 220	5 x 4 = 20	45 x 4 = 180