GWELD
SEAL OF TRUST

GRIDUCT 86C3

IDENTIFICATION
Griduct 86C3, E 8016-C3

CLASSIFICATION
AWS/SFA 5.5: E8016-C3 BS 2493 1NiBH DIN 8529

DESCRIPTION
A basic coated low-hydrogen electrode producing a nominal 1.0% Ni weld metal, designed for welding C-Mn steel and low alloy steel where excellent fracture toughness at temperature down to ?60°C is required. The addition of 1.0% Ni produces microstructural refinement, with improved tolerance to procedural variations compared to plan C-Mn weld metal. The deposited weld metal is of X-ray quality.

WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	Cr	Ni	V	Mo	S	P
0.090 max	0.8 - 1.25	0.20 - 0.50	0.15 max	0.80 - 1.10	0.05 max	0.35 max	0.020 max	0.025 max

MECHANICAL PROPERTIES (RANGE)

TS (N/mm2)	YS (N/mm2)	EL (%) (L=4D)	CVN Impact Value	
			Temp	Joules
550 - 650	470 - 550	24 - 30	-40°C	50 - 120
			-50°C	40 - 100

TYPICAL APPLICATIONS
- Welding of higher strength steel structure where post-weld heat-treatment is impracticable.
- Off-shore construction, pressure vessels, pipe lines, BS4360 Grade 50E, 55C, 55EF structural steel, DIN St52.3, GS-38, GS-52, etc.

DIFFUSIBLE HYDROGEN IN THE WELD METAL : Max 4.0 ml / 100 g of weld metal
MICROSTRUCTURE : In the as welded condition, the microstructure is ferritic with a component of acicular ferrite for optimum toughness.
ASME IX QUALIFICATION : QW-432 F-NUMBER 4 QW-442 A-NUMBER 10
REDRYING TEMPERATURE : 300°C / 2hrs, max 5 cycles, 10 hrs. total.

WELDING POSITION :

PACKING PARAMETERS

Size (mm)	Length (mm)	Amps AC / DC (+)	Packing / Box (kg)	Packing / Box (Pcs)

2.5	350	65 - 100	5 x 4 = 20	160 x 4 = 640
3.15 / 3.20	450	80 - 130	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