

# GRIDUCT 86C2

## IDENTIFICATION

Griduct 86C2, E 8016-C2

## CLASSIFICATION

AWS/SFA 5.5 : E 8016C2 BS: 2493-85 3NiBH

DIN : 8529-81 ESY 4687 3NiB

## DESCRIPTION

A basic coated, low-hydrogen electrode producing a 3.5 % nickel weld metal. The all position electrode is designed for applications demanding high yield strength and excellent fracture toughness at temperature down to minus 100°C. The welds are of radiographic quality.

## WELD METAL ANALYSIS (RANGE) %

C	Mn	Ni	Si	S	P
0.12 max	1.25 max	3.0 - 3.75	0.20 - 0.50	0.025 max	0.025 max

## MECHANICAL PROPERTIES (RANGE)

UTS (MPa)	YS (MPa)	EL (%) (L=4D)	CVN Impact Value	
			Temp	Joules
560 - 650	470 - 560	19 - 26	-80°C	50 - 80
			-100°C	35 - 80

## TYPICAL APPLICATIONS

- 3.5% Ni alloyed steels specifically for service at cryogenic temperatures down to -100°C.
- Off-shore fabrication.
- Construction of cryogenic plants and associated piping eg. Petrochemical industry.
- ASTM A335-Grade 6 Pipe
- ASTM A352-Grade LF1/LF2 forgings
- ASTM A352-Grade LC2 castings
- ASTM A333-Grade 3 pipe
- ASTM A350-Grade LF 350 forging

**MICROSTRUCTURE** : Ferritic with a component of acicular ferrite

**ASME IX QUALIFICATION** : QW-432 F NO 4, QW-442 A NO 10

**REDRYING TEMPERATURE** : 250 - 300°C / 1 - 2hrs

## WELDING POSITION :



## PACKING PARAMETERS

# GWELD

Size (mm)	Length (mm)	Amps AC / DC (+/-)	Packing / Box (kg)	Packing / Box (Pcs)
2.5	350	70 - 110	5 x 4 = 20	160 x 4 = 640
3.15 / 3.20	450	90 - 140	5 x 4 = 20	110 x 4 = 440
4	450	140 - 190	5 x 4 = 20	70 x 4 = 280
5	450	180 - 250	5 x 4 = 20	45 x 4 = 180