

# GRIDUCT B1

## IDENTIFICATION

Griduct B1, E8018-B1

## CLASSIFICATION

AWS/SFA 5.5: E 8018-B1

## DESCRIPTION

A heavy coated, low hydrogen, all-position, except vertical down synthetic electrode which deposits 0.50% Cr, 0.5%Mo weld metal. It is intended for welding creep resisting steels of similar composition, used in power generating plant. The welds are of X-ray quality.

## WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	S	P	Cr	Mo
0.05 - 0.12	0.5 - 0.9	0.70 max	0.025 max	0.03 max	0.4 - 0.65	0.4 - 0.65

## MECHANICAL PROPERTIES (RANGE)

UTS (MPa)	0.2% PS (MPa)	EL (%) (L=4D)	CVN Impact Value		Fillet Weld test
			Temp	Joules	
550 - 650	460 - 560	20 - 28	27°C	55 - 100	Satisfactory

## TYPICAL APPLICATIONS

Ideal for welding Chromium-Molybdenum alloy steels (0.5Cr-0.5Mo) boilers, pressure vessels, headers, high pressure piping, heat exchangers and condensers, power generation, oil refineries, petrochemical industries.

**ASME QUALIFICATION :** QW-432 F.NO4, QW-442 A NO.4

**RECOMMENDED REDRYING :** 300°C / 2 hrs, (max 5 times, and total 10 hrs max)

**MOISTURE IN THE FLUX COATING :** 0.3% by weight, maximum

**DIFFUSIBLE HYDROGEN CONTENT IN THE WELD METAL :** Max 5 ml / 100g. of weld metal

**RECOMMENDED PREHEATING & INTERPASS TEMPRATURE :** 163°C - 191°C

**MICROSTRUCTURE :** After PWHT, the microstructure consists of tempered bainite.

## WELDING POSITION :



## PACKING PARAMETERS

# GWELD

Size (mm)	Length (mm)	Amps AC (70V) / DC (+)	Packing / Box (kg)	Packing / Box (Pcs)
2.5	350	60 - 80	5 x 4 = 20	160 x 4 = 640
3.15 / 3.20	450	90 - 130	5 x 4 = 20	110 x 4 = 440
4	450	140 - 190	5 x 4 = 20	70 x 4 = 280
5	450	190 - 250	5 x 4 = 20	45 x 4 = 180