

# GRIDUCT 95B9

## IDENTIFICATION

Griduct 95B9, E 9015-B91

## CLASSIFICATION

AWS / SFA 5.5: E9015-B91

## APPROVALS

BHEL and IBR

## CREEP TEST

Completed 40,000 hours at 600°C. Witnessed by IBR & LR.

## DESCRIPTION

Non-synthetic Hydrogen controlled, heavy coated basic type electrode depositing 9Cr-1Mo-0.2V-N-Nb alloyed weld metal.

Deposited weld metal has improved creep strength toughness and fatigue life and oxidation and corrosion resistance at elevated temperature upto 620°C.

## WELD METAL ANALYSIS (RANGE) %

C	Mn	Si	S	P	Cr	Mo	V	Nb	N	Al	Cu
0.08 - 0.12	0.70 max	0.2 - 0.30	0.01 max	0.010 max	8.0 - 10.0	0.9 - 1.20	0.15 - 0.25	0.02 - 0.07	0.02 - 0.07	0.02 max	0.04 max

## MECHANICAL PROPERTIES PWHT : 760°C. for 2 hours.

UTS (MPa)	YS at 0.2% offset, MPa	EL (%) (L=4D)	CVN Impact Value	
			Temp	Joules
660 min	580 min	17 - 24	20°C	47 min

**HARDNESS (PWHT) :** 240 BHN (approximately).

**DIFFUSIBLE H2 CONTENT :** < 4 ml/100gm weld metal.

**MICROSTRUCTURE :** In PWHT condition, the microstructure consists of tempered martensite.

**REDRYING TEMPERATURE FOR ELECTRODES :** 350°C / 2 hrs

## WELDING POSITION :



## PACKING PARAMETERS

Size (mm)	Length (mm)	Amps DC (+)	Packing / Box (kg)	Packing / Box (Pcs)
2.5	350	60 - 90	5 x 4 = 20	160 x 4 = 640

	350	90 - 140	5 x 4 = 20	110 x 4 = 440
4	350	130 - 180	5 x 4 = 20	70 x 4 = 280
5	350	160 - 220	5 x 4 = 20	45 x 4 = 180