

GRIDUCT B6

IDENTIFICATION

Griduct B6, E 8018-B6

CLASSIFICATION

AWS A 5.5 E8018-B6 (E502-15),
DIN 8575-84 ECrMo5B20+, BS 2493-85 E5CroB

DESCRIPTION

A heavy coated basic type low hydrogen all position electrode depositing a low carbon 5 % Cr / 0.5 % Mo weld metal. It is intended for welding creep-resisting steel of matching composition used widely in chemical and petrochemical plants because of excellent resistance to hydrogen attack and corrosion by high sulphur crude oils at service temperature upto 650°C. The weld deposit meets X-ray / Radiographic quality code requirements.

WELD METAL ANALYSIS (RANGE) %

| C | Mn | Si | S | P | Cr | Mo | Ni |
|-------------|-----------|-----------|-----------|----------|-----------|-------------|----------|
| 0.05 - 0.10 | 0.5 - 1.0 | 0.2 - 0.6 | 0.025 max | 0.03 max | 4.0 - 6.0 | 0.45 - 0.65 | 0.40 max |

MECHANICAL PROPERTIES (RANGE) PWHT (750oC/ 1 hr.)

| UTS (MPa) | YS (MPa) | EL (%) (L=4D) | CVN Impact Value | |
|-----------|-----------|------------------|------------------|----------|
| | | | Temp | Joules |
| 580 - 690 | 460 - 590 | 19 - 24 | 20°C | 50 - 100 |

TYPICAL APPLICATIONS

- Boilers, Super heaters, Heat-exchangers, piping and pressure vessels in oil refineries.
- ASTM A387 Grade 5
- ASTM A155 Grade 5Cr
- A335 Grade P5 and P5b
- ASTM A199 Grade T5, A213 Grade T5 and T5b

MICROSTRUCTURE : In PWHT Condition : Tempered bainite

RECOMMENDED REDRYING : 300°C / 2 hrs

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

DIFFUSIBLE HYDROGEN CONTENT IN THE WELD METAL : 4.0 ml / 100g maximum

PREHEAT TEMPERATURE : 250°C

INTERPASS TEMPERATURE : 250° - 300°C

WELDING POSITION :



1G 2F 2G 3G 4G 5G

PACKING PARAMETERS

GWELD

| Size (mm) | Length (mm) | Amps AC 70 OCV / DC(+) | Packing / Box (kg) | Packing / Box (Pcs) |
|-------------|-------------|------------------------------|-----------------------|------------------------|
| 2.5 | 350 | 70 - 100 | 5 x 4 = 20 | 160 x 4 = 640 |
| 3.15 / 3.20 | 450 | 80 - 140 | 5 x 4 = 20 | 110 x 4 = 440 |
| 4 | 450 | 120 - 180 | 5 x 4 = 20 | 70 x 4 = 280 |
| 5 | 450 | 150 - 220 | 5 x 4 = 20 | 45 x 4 = 180 |