

KMS-502

Classification

| | | |
|-----|--------|-----------|
| AWS | A5.28 | ER80S-B6 |
| JIS | Z3317 | G55A-5CM |
| EN | 3580-A | E CrMo5 B |
| GB | T 8110 | ER55-G |

Shielding Gas Ar+1~2%O₂

Applications and Features

- (1) It is suitable for welding Cr-Mo heat resistant steel.
- (2) Weld metal contains 5%Cr-0.5%Mo.
- (3) It is ideal for welding in steel for petro-chemical plants such as ASTM A387Gr.5 and JIS SCM6.

Welding Instruction

- (1) Clean up the contaminations on the steel before welding.
- (2) It provides high hardenability with air cooling. Preheat and PWHT are required.
- (3) Preheat and interpass temperature are: 160~190°C, PWHT: 840~870°C.
- (4) Please refer to Appendix B.

Typical Chemical Composition of Weld Metal (wt %)

| C | Si | Mn | P | S | Cr | Mo |
|-------|------|------|-------|-------|------|------|
| 0.075 | 0.32 | 0.55 | 0.015 | 0.014 | 5.50 | 0.55 |

Typical Mechanical Properties of Weld Metal (PWHT:850°Cx2Hr)

| Tensile Strength N/mm ² (kgf/mm ²) | Yield Strength N/mm ² (kgf/mm ²) | Elongation % | Charpy V-Notch °C | J (kgf -m) |
|--|--|-----------------|----------------------|------------|
| 630(64.2) | 480(49.0) | 25 | 0 -120 | — — |

Size and Suggested Operating Range (DC+)

| Parameters | Diameter (mm) | | | | |
|---------------------------|---------------|---------|---------|---------|---------|
| | 1.0 | 1.2 | 1.4 | 1.6 | |
| Short-Circuit Transfer | A | 80~160 | 100~210 | — | — |
| | V | 16~22 | 17~22 | — | — |
| Spray Transfer | A | 180~280 | 200~300 | 210~320 | 220~330 |
| | V | 24~30 | 24~30 | 24~32 | 24~32 |