

DESCRIPTION

Executive 80S-B8 is designed to weld 9Cr - 1 Mo type steels using MIG or TIG welding processes where high temperature service and creep resistance is important.

The alloy content of the wire produces weld metal that matches the base material and maintains mechanical properties after post-weld heat treat.

Executive 80S-B8 filler metal is produced using high quality raw materials and tightly controlled chemistry to provide top quality, exceptionally clean wires that deliver smooth feedability and the results fabricators demand.

APPLICATIONS & FEATURES

Executive 80S-B8 is used to weld 9Cr – 1Mo steels for service in power plants, chemical or petro-chemical plants and in the ammonia synthesis process. It is also used for heat exchangers, boilers, piping and pressure vessels for temperature service up to 1112°F (600°C).

Typical material grades include ASTM A387-Gr 9, A335-P9 and 182-F9.

TYPICAL WIRE CHEMISTRY & MECHANICAL PROPERTIES

| C | Mn | Si | Cr | Mo | P | S | Cr |
|------|------|------|------|------|-------|-------|------|
| 0.08 | 0.58 | 0.33 | 8.65 | 0.92 | 0.021 | 0.008 | 8.65 |

Tensile Strength: 97,900 PSI min **Yield Strength:** 78,000 PSI min **Elongation:** 24 %

Charpy V-Notch:

*PWHT 1 hour @ 1375°F/ 745°C

TYPICAL WELDING PARAMETERS

| Process | Diameter | Voltage | Amperage | Speed (in/min) | Shielding Gas / Flux | |
|---------------------|----------|-----------------------------|----------|----------------|------------------------------|------------------------------|
| GMAW - Short | .035" | 14-20 | 90-160 | 100 | 100% CO ₂ | |
| | .045" | 16-20 | 120-200 | 150 | 75% Ar / 25% CO ₂ | |
| | - Spray | .035" | 25-28 | 180-230 | 125 | 98% Ar / 2% O ₂ |
| | | .045" | 25-30 | 250-350 | 150 | 75% Ar / 25% CO ₂ |
| GTAW | .093" | Direct Current; Electrode - | | | 100% Ar | |
| | .125" | | | | | |

STANDARD PACKAGING

| | | |
|-------------------|----------------------|-----------------|
| GMAW (MIG) | 33-lb plastic spools | 1,980-lb pallet |
| GTAW (TIG) | 10-lb plastic tube | 40-lb box |



CLASSIFICATION

AWS/SFA 5.28, Class **ER80S-B8**