ER80S-B2 MIG

TOP FEATURES

- Solid wire for MIG welding 1½Cr-½Mo creep resisting steels
- High-performance alloy for refinery applications

TYPICAL APPLICATIONS

- Petro-Chemical
- Power Plants
- Piping
- Turbine Casting
- Steam Chests

CLASSIFICATION

AWS A5.28 ER80S-B2 EN ISO 21952-B G 1CM

SHIELDING GASES (ACC. EN ISO 14175)

M21 Mixed gas Ar+ 15-25% CO_2 M12 Mixed gas Ar+ 0.5-5% CO_2

CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, WIRE

| | С | Mn | Si | S | Р | Cr | Мо | Ni | Cu |
|---------|------|-----|-----|-------|-------|-----|------|------|------|
| Min. | 0.07 | 0.4 | 0.4 | | | 1.2 | 0.4 | | |
| Max. | 0.12 | 0.7 | 0.7 | 0.020 | 0.020 | 1.5 | 0.65 | 0.2 | 0.35 |
| Typical | 0.10 | 0.5 | 0.5 | 0.01 | 0.015 | 1.3 | 0.5 | <0.1 | 0.10 |

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

| Dunneytics often DIAM IT CO | 000/14 | Min. | Typical | | |
|-----------------------------|----------|--------|----------|----------|--|
| Properties after PWHT 62 | 0°C/ III | IVIII. | 700°C/1h | 690°C/4h | |
| Tensile strength | (MPa) | 550 | 635 | 590 | |
| 0.2% Proof strength | (MPa) | 470 | 530 | 480 | |
| Elongation (%) | 4d | 19 | 23 | 26 | |
| | 5d | 17 | 21 | 24 | |
| Impact ISO-V (J) | +20°C | | 160 | | |
| | -10°C | | | >115 | |
| Hardness | (HV) | | | 195 | |
| | (HB) | | | 190 | |

PACKAGING AND AVAILABLE SIZES

| Wire diameter (mm) | Packaging | Weight (kg) | Item number | |
|--------------------|--------------|----------------|-------------|--|
| 1.2 | SPOOL (S300) | 15.0 | MER80SB2-12 | |

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application

Safety Data Sheets (SDS) are available here:



Subject to Change – The information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.eu for any updated information.

ER80S-B2 MIG-EN-27/06/25

