

SM-385

SMAW ELECTRODE - STAINLESS STEEL

CLASSIFICATIONS :

AWS A5.4 E385-16
ASME SFA A5.4 E385-16
JIS Z3221 ES385-16
BS EN ISO 1600 Cu N L R 1 2

DESCRIPTION

SM-385 is an electrode designed for welding high alloyed, fully austenitic stainless steels such as W.-Nr. 1.4539 (ASTM B-625 and 904L), which have high corrosion resistance in sulphuric and phosphoric acids and good pitting resistance in acidic solutions chlorides and fluorides, such as seawater. This electrode containing a weld metal of a fully austenitic low carbon with molybdenum and copper can also be used for surfacing mild and low-alloyed steel.

FEATURES

Smoother arc transfer, Easier slag removal, Less Spatter.
Excellent usability in all positions welding including vertical down.
Suitable for butt and fillet welding of thin plates/sheets.
Smooth and bright weld seams, Smoother with a finer ripple bead surface.
Stable arc on AC and DC.

APPLICATIONS

This electrode can have application for tanks and process vessels, piping systems, agitators, rotors, cast pumps and valves for the use in the fertilizer, phosphoric and sulphuric environments.

CHEMICAL COMPOSITION

| | %C | %Mn | %Si | %P | %S |
|-----------------|-------------|-------------|-----------|-----------|-----------------|
| Requirements | 0.03 max | 1.0 - 2.5 | 0.90 max | 0.03 max | 0.02 max |
| Typical Results | 0.02 | 1.22 | 0.48 | 0.02 | 0.02 |
| | %Ni | %Cr | %Mo | %Cu | Nb (Cb) Plus Ta |
| Requirements | 24.0 - 26.0 | 19.5 - 21.5 | 4.2 - 5.2 | 1.2 - 2.0 | - |
| Typical Results | 24.4 | 20.6 | 4.78 | 1.5 | 0.07 |

MECHANICAL PROPERTIES

| | Tensile Strength, Mpa | Yield Strength, Mpa | Elongation, % |
|-----------------|-----------------------|---------------------|---------------|
| Requirements | 520 min | - | 30 min |
| Typical Results | 577 | | 36 |

OPERATING PROCEDURES

| Polarity | Current (Amps) | | | | |
|----------|----------------|----------|-----------|-----------|-----------|
| | Ø2.0 mm | Ø2.6 mm | Ø3.2 mm | Ø4.0 mm | Ø5.0 mm |
| AC | 50 - 80 | 75 - 115 | 110 - 140 | 160 - 200 | 205 - 260 |
| DC ± | 45 - 75 | 70 - 105 | 100 - 135 | 145 - 180 | 185 - 235 |

WELDING POSITION



NOTE

1. Rebake the electrodes at 250 ~ 300°C for 1 hour and keep it at 100 ~ 150°C prior to use.
2. Use stainless steel wire brush for cleaning of slags
3. Follow the recommended welding parameters to achieve good sound welds