

SA 904L

CATEGORY SAW Arc Submerged

TYPE SAW stainless steel austenitic filler metal with excelent corrosion resistance

APPLICATIONS Tanks and process vessels, Piping systems, agitators, rotors, cast pumps and valves for use in the fertilizer, phosphoric,sulphuric and acetic acid plants

PROPERTIES SA 904L is used for welding materials of similar chemical composition which are used for fabrication of equipment and vessels for handling of sulfuric acid and many chloride containing media. This filler metal may also find applications for joining Type 317L material where improved corrosion resistance in specific media is needed. In order to reduce the propensity for fissuring and hot cracking, the low melting constituents such as carbon, silicon, and phosphorus are controlled to lower levels in this alloy. Best to be used with our fused flux [FL 880](#)

CLASSIFICATION

| | |
|------------|---|
| AWS | A 5.9: ER 385 |
| EN ISO | 14343-A: S 20 25 5 Cu L 14343-B: SS385 |
| DIN: W.Nr. | 1.4539 |
| DIN | 8556: ~20 25 5 L Cu |

SUITABLE FOR W.Nrs: 1.4500, 1.4505, 1.4506, 1.4531, 1.4536, 1.4539, 1.4573, 1.4585, 1.4586, 4 NS N 08904 1.4539, 1.4537, 1.4519, 1.4505, UNS N08904, S31726, X1NiCrMoCu 25-20-5, X1CrNiMoCuN 25-25-5, X4NiCrMoCuNb 20-18-2, Uranus B6

APPROVALS CE approved

WELDING POSITIONS:



WELD DEPOSIT WEIGHT (TYPICAL) %

| C | Mn | Si | Cr | Ni | Mo | N | Cu | P | S |
|-------|------|------|------|------|-----|------|-----|-------|-------|
| 0.019 | 2.05 | 0.35 | 20.5 | 25.1 | 4.6 | 0.04 | 1.6 | 0.014 | 0.015 |

TYPICAL WELD METAL PROPERTIES

| Heat Treatment | R _{p0,2} (N/mm ²) | R _m (N/mm ²) | A ₅ (%) | Impact Energy (J) ISO-V | | | Hardness HRc / HV |
|----------------|---|--|-----------------------|-------------------------|-------|-------|----------------------|
| | | | | +20°C | -40°C | -60°C | |
| AW | >380 | >560 | >35 | >70 | | | |

AW: as welded

WELDING PARAMETERS / PACKING

| Welding Parameters | | | Packing | | |
|--------------------|-------------|-----------------|------------|------------|-------------|
| D (mm) | Voltage (V) | Current (A) DC+ | spool type | kg / spool | kg / pallet |
| 1.6 | 28-30 | 180-250 | K-415 | 25 | |
| 2.0 | 29-31 | 200-300 | K-415 | 25 | |
| 2.4 | 29-32 | 220-380 | K-415 | 25 | |

REDRYING TEMPERATURE Not required