

Classifications

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| EN ISO 14343-A | AWS A5.9 / SFA-5.9 |
| S 20 10 3 | ER308Mo (mod.) |

Characteristics and typical fields of application

Thermanit 308 Mo is a solid wire for submerged arc welding. stainless; resistant to intercrystalline corrosion and wet corrosion up to 300 °C. For joining of stainless Cr and similar austenitic CrNiMo steels / cast steel grades. For joining of dissimilar materials. For tough joints on high manganese steel (steel castings), CrNiMn steels/cast steel grades and armour steels. For surfacing and repair welding on wear-exposed parts: rotors, rails. Especially suited for austenitic-ferritic joints at max. application temperature 300 °C. Particularly for tough joints of unalloyed/low-alloy steels / cast steel grades or stainless heat resistant Cr steels / cast steel grades with austenitic steels / cast steel grades.

Recommended SAW flux:

Marathon 431
 Marathon 805

Base materials

Welding and dissimilar joining of high-strength, mild steels and low-alloyed constructional steels; quenched tempered steels, armour plates and austenitic manganese steels. Welding of non-alloyed as well as alloyed boiler or constructional steels to high-alloyed stainless Cr and CrNi-steels.

Typical analysis

| | C | Si | Mn | Cr | Ni | Mo |
|-------|------|------|-----|------|------|-----|
| wt.-% | 0.05 | 0.50 | 1.3 | 20.5 | 10.5 | 3.3 |

Mechanical properties of all-weld metal - typical values (min. values)

| Condition | Yield strength $R_{p0.2}$ | Tensile strength R_m | Elongation A ($L_0=5d_0$) | Impact energy ISO-V KV J |
|------------------------|---------------------------|------------------------|-----------------------------|--------------------------|
| | MPa | MPa | % | 20°C |
| u | ≥ 400 | 650 (≥ 620) | ≥ 35 | 80 |
| u untreated, as-welded | | | | |

Operating data

Dimension mm

3.2

Approvals

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