

Description

OK Tigrod 5183 was developed to provide the highest possible strength in the as-welded condition of alloy AA 5083 and similar high magnesium alloys. The more common OK Tigrod 5356 will typically fail to meet the as-welded tensile requirements of AA 5083. The alloy is typically utilised in marine and structural applications where high strength, high impact fracture toughness and exposure to corrosive elements are important. The alloy is not recommended for elevated temperature applications due to its susceptibility to stress corrosion cracking. The alloy is non-heat treatable.

Welding current

AC

Classifications

SFA/AWS A5.10 R5183
EN ISO 18273 S Al 5183 (AlMg4,5Mn0,7(A))

Wire composition

| Si | Mn | Cr | Cu | Ti | Zn | Fe | Mg |
|-------|-----|------|-------|-------|-------|-------|-----|
| <0.25 | 0.8 | 0.15 | <0.10 | <0.15 | <0.25 | <0.40 | 4.8 |

Typical mech. properties all weld metal

| | |
|-----------------------|-----|
| Yield stress, MPa | 140 |
| Tensile strength, MPa | 290 |
| Elongation, % | 25 |

Charpy V

| | |
|----------------|------------------|
| Test temps, °C | Impact values, J |
| +20 | 30 |

Approvals

| | |
|-------|--|
| CWB | AWS A5.10 (Item number ending with A) |
| DB | 61.039.04 |
| VdTÜV | |
| Ü | 61.039 |

Packing data

| Diameter, mm | Length, mm | Weight of rods/box, kg |
|--------------|------------|------------------------|
| 1.6 | 1000 | 2.5/5 |
| 2.0 | 1000 | 2.5 |
| 2.4 | 1000 | 2.5/5 |
| 3.2 | 1000 | 2.5/5 |
| 4.0 | 1000 | 2.5/5 |