

AX-4043 AX-AISI5

Standard

| | |
|---------------------|-----------------------|
| DIN EN ISO 18273 | S Al 4043 (AISI5 (A)) |
| Material number AWS | 3.2245 |
| A 5.10 | ER4043 |

Area of application

Filler rod/wire electrode of aluminium-silicon alloy for TIG or MIG welding of aluminium-silicon-alloys.

Special hints

Weld seam area must be metallic bright. With large workpieces and wall thicknesses above 15mm, preheat the area of the welding groove to 150°C-200°C.

Typical analysis in %

| | | | | | | | |
|----------|----|--|--|--|--|--|--|
| Al Basis | Si | | | | | | |
| | 5 | | | | | | |

Important base materials

Aluminium-silicon-alloys, such as: EN AW-6061 (AlMgSi1), EN AW-6063 (AlMgSi0.7), EN AW-6082 (AlMgMnSi1), AlSi and AlSiMg cast with max. 7% Si

Material properties

| | | |
|---------------------------------|------------------------|--|
| Welding process | TIG/MIG | Mechanical properties of the weld metal as per DIN EN 1732-3 |
| Shielding gas | argon I1 at 20°C | |
| Test temperature | | |
| 0.2%-yield strength $R_{p0.2}$ | [MPa] | 50 |
| Tensile strength R_m | [MPa] | 120 |
| Elongation A ($L_0 = 5d_0$) % | [%] | 9 |
| Electrical conductivity | [S*m/mm ²] | 24-32 |
| Thermal conductivity | [W/(m*K)] | 170-190 |
| Thermal expansion coefficient | [1/K] | 22.1*10 ⁻⁶ |

Applicable shielding gases (EN ISO 14175)

TIG: argon I1, MIG: argon I1 and argon-helium mixtures I3

Approval

(Request current scope if required)

Product forms (as per EN ISO 544) (other dimensions available on request)

| | | | | | | | |
|-------|---------|-----|-----|-----|-----|-----|-----|
| Spool | Ø mm | 0.8 | 1.0 | 1.2 | 1.6 | 2.4 | |
| Rod | Ø mm | 1.6 | 2.0 | 2.4 | 3.2 | 4.0 | 5.0 |
| | x1000mm | | | | | | |