

AISI5

CLASSIFICATION

| | | | |
|------------------|----------------------|---------------|--------|
| AWS A5.3 | E4043 | F-Nr | 23 |
| ISO 18273 | Al 4043A* [AISI5(A)] | Mat-Nr | 3.2245 |

*:Deviation,see remarks

GENERAL DESCRIPTION

Especially for welding forged and cast aluminium alloys containing less than 5% Si as main alloying element
Good weldability, no porosity

WELDING POSITIONS (ISO/ASME)



PA/1G



PB/2F



PF/3Gu

CURRENT TYPE

DC +

CHEMICAL COMPOSITION (W%), TYPICAL, ALL WELD METAL

| | |
|-----------|-----------|
| Al | Si |
| bal. | 5.0 |

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

| | Condition | 0.2% Proof strength [N/mm ²] | Tensile strength [N/mm ²] | Elongation [%] |
|----------------|-----------|---|--|-------------------|
| Typical values | AW | 90 | 160 | 15 |

PACKAGING AND AVAILABLE SIZES

| | Diameter [mm] | 2.5 | 3.2 | 4.0 |
|------------------|----------------------|-----|-----|-----|
| | Length [mm] | 350 | 350 | 350 |
| Metal can | Pieces / unit | - | - | - |
| | Net weight/unit [kg] | 2.0 | 2.0 | 2.0 |

AISI5: rev. C-EN23-01/02/16

AlSi5

EXAMPLES OF MATERIALS TO BE WELDED

Aluminium-silicon alloys and dissimilar of several aluminium alloys.

With restriction : precipitation hardening alloys such as :

Mat. Nr

| | |
|------------|--------|
| AlCuMg1 | 3.1325 |
| AlMgSi1 | 3.2315 |
| AlZn4.5Mg1 | 3.4335 |

CALCULATION DATA

| Sizes Diam. x length (mm) | Current range (A) | Current type | Weight/ 1000 pcs (kg) |
|---------------------------------|----------------------|-----------------|-----------------------------|
| 2.5 x 350 | 40-70 | DC+ | 9.2 |
| 3.2 x 350 | 60-90 | DC+ | 14.0 |
| 4.0 x 350 | 80-120 | DC+ | 20.4 |

*Stub end 35mm

WELDING PARAMETERS, OPTIMUM FILL PASSES

| Diameter (mm) | Welding positions | | |
|------------------|-------------------|-------|---------|
| | PA/1G | PB/2F | PF/3Gup |
| 2.5 | 60A | 60A | 55A |
| 3.2 | 80A | 80A | 75A |
| 4.0 | 110A | 110A | 105A |

REMARKS / APPLICATION ADVICE

If the thickness is more than 10 mm, it is advisable to preheat at 150 - 250°C

Welding with short arc preferable

Electrode with 90°angle on material