



Inspection certificate
EN 10204 Type 3.1

Doc-no. MF 821R / 3.1 / M / Rev.8



Delivery note no.: 80220356

Customer: Meltolit AB
JA Gahms Gata 4
SE-421 31 Västra Frölunda

Customer order no.: 31332

Quantity delivered: 240,00 KG
Customer:
(to be filled in by customer)

Certificate no.: WZ31/82115E/063680/80220356-20

Quantity delivered:
(to be filled in by customer)

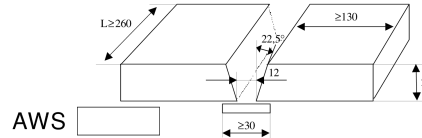
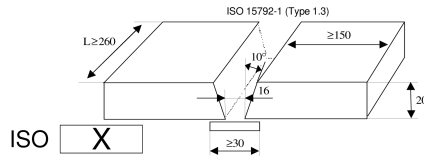
Type: **MEGAFIL 821 R**
Diameter Ø: **1.2 mm | 0.045"**
Batch: **063680**

Specification: T 50 6 1Ni P M21 1 H5
ISO 17632 A: E81T1-Ni1M-J H4
AWS ASME 5.29:

Current: =+/DCEP 230 A
Voltage: 26,8 V
Welding speed: 35-40 cm/min
Shielding gas / Flux: M21(82/18)
Flow rate: 15 l/min
Stick out: 20-15 mm
Position: PA (1G)
Interpass temp.: 150 °C 302 °F

DB-type certificate: 42.027.09
TÜV-type certificate: 09536

Test methods



All weld metal chemical composition (%)

| C | Si | Mn | P | S | Cr | Ni | Mo | Cu | Al | V | Ti | Nb | N2 |
|------|------|------|-------|-------|-------|-----------|-------|-------|-------|-------|-------|-------|-------|
| 0,05 | 0,52 | 1,25 | 0,009 | 0,004 | 0,030 | 0,982 | 0,009 | 0,131 | 0,003 | 0,005 | 0,046 | 0,000 | 0,005 |
| ISO | | | | | | | | | | | | | |
| | max. | max. | | | max. | max. | max. | | max. | | | max. | |
| | 0,80 | 1,40 | | | 0,20 | 0,6 - 1,2 | 0,20 | 0,30 | | 0,08 | | 0,05 | |
| AWS | | | | | | | | | | | | | |
| max. | max. | max. | max. | max. | max. | max. | max. | | | max. | | | |
| 0,12 | 0,80 | 1,50 | 0,03 | 0,03 | 0,15 | 0,8 - 1,1 | 0,35 | | | 0,05 | | | |

Mechanical properties of the pure weld metal

| Heat-treatment | Tensile test ISO 5178 | | | Impact test ISO 9016 VWT 0/b | | | | | | | | | |
|----------------|-----------------------|-----------|---------|------------------------------|-----|-------|-------|-------|----|------|------|-------|-------|
| | Rm [MPa] | Rp0,2 [%] | A [%] | RT | 0°C | -20°C | -40°C | -60°C | RT | 32°F | -4°F | -40°F | -76°F |
| as welded | 609 | 551 | 28 | | | | | 97 | | | | | 71 |
| | min. 560 | min. 500 | min. 18 | | | | | 101 | | | | | 74 |
| | [ksi] | [%] | [%] | | | | | 91 | | | | | 67 |
| | 88 | 80 | 28 | | | | | 96 | | | | | 71 |
| | min. 81 | min. 73 | min. 18 | | | | | | | | | | |

Name: Jutzi
Date: 31.07.2023

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