



Elgacore MXA 100

FCAW - Flux cored arc welding
Un-alloyed

Date: 2005-01-26
Revision: 17

Description:

Elgacore MXA 100 is a metal cored wire for use with an Ar/CO₂ gas shield, designed for high productivity welding in the horizontal and horizontal-vertical positions. The wire runs with a stable, low spatter and deep penetrating arc. The slag produced is of a very low level, similar to that from a solid wire and inter-run deslagging is not necessary. Combined with a highly reliable arc-start, these characteristics make Elgacore MXA 100 an ideal choice for robotic or mechanised welding. Elgacore MXA 100 produces a very low hydrogen weld metal and good mechanical properties. Suitable for general fabrication and structural steels.

Welding positions:

1 2 3 R T Y

Welding current:

DC +

Deposition efficiency:

96%

Shielding gas:

80% Ar + 20% CO₂, 22-25 l/min

Stick-out:

15-25 mm

Hydrogen content / 100 g weld metal

≤ 5 ml

Chemical composition, wt.%

| | C | Si | Mn | P | S | Cr | Ni |
|---------|------|------|------|-------|-------|------|------|
| Min | | | | | | | |
| Typical | 0.05 | 0.75 | 1.55 | 0.011 | 0.009 | | |
| Max | 0.12 | 0.90 | 1.75 | 0.03 | 0.03 | 0.20 | 0.50 |

| | Mo | Cu | V | Nb |
|---------|------|------|------|------|
| Min | | | | |
| Typical | | | | |
| Max | 0.20 | 0.30 | 0.08 | 0.05 |

Mechanical properties

| | Specified | Typical |
|-----------------------|---------------|--------------|
| Yield strength, Re: | ≥ 420 MPa | 460 MPa |
| Tensile Strength, Rm: | 500-640 MPa | 555 MPa |
| Elongation, A5 | ≥ 22% | 30% |
| Impact energy, CV: | -40°C • >47 J | -40°C • 80 J |

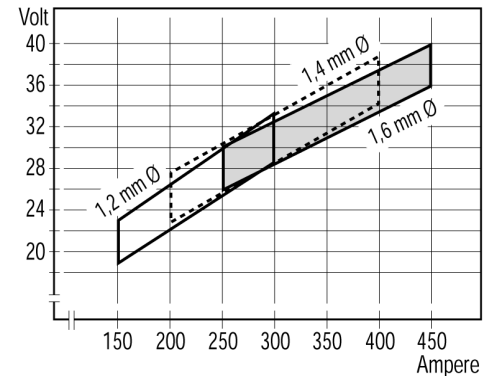
Classification:

| | |
|---------------|-----------------|
| EN 758 | T 42 4 M M 3 H5 |
| AWS A5.18 | E 70C-6M |
| BS 7084 | T 520 GMH |
| NF A81-350-86 | TGS 51.23 BH |
| SFS 3328 | 51-3 |

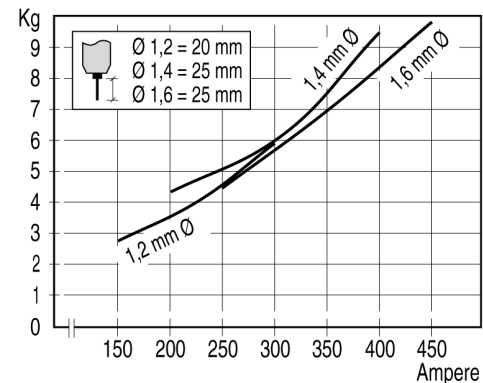
Approvals:

| | |
|------------|------------|
| BV | SA4YM HHH |
| TÜV | 07657.00 |
| GL | 4YH5S |
| MOD (Navy) | MS 25 mm |
| DB | 42.042.10 |
| DNV | IV Y42H5 |
| LR | 3S, 4YS H5 |
| CE | |

Recommended parameter range:



Deposition rate per hour:



Product data

| Diam.mm | Product code | Delivery form |
|---------|--------------|----------------|
| 1,2 | 95621012 | 15 kg WBS |
| 1,2 | 95622012 | 20 kg PSP |
| 1,2 | 95622112 | 5 kg PSP |
| 1,2 | 95622212 | 250 kg AutoPac |
| 1,4 | 95621014 | 15 kg WBS |
| 1,4 | 95622014 | 20 kg PSP |

| | | |
|-----|----------|----------------|
| 1,4 | 95622214 | 250 kg AutoPac |
| 1,6 | 95622016 | 20 kg PSP |
| 1,6 | 95622216 | 250 kg AutoPac |

Note

Strip:

S ≤ 0.015%

P ≤ 0.025%

N ≤ 0.004%