



Selectarc Al105

Aluminium Electrode with 5% Si

Classification

AWS A5.3 : E4043

DIN 1732 : EL-AlSi5

Description & Applications

Aluminium electrode with 5%Si for welding and repairing aluminium or aluminium alloy pieces (AlSi, AlCuSiMn, AlSiMg, AlZnMg...). For joints between aluminium and aluminium-alloys, as well as for aluminium castings.

Main applications: Engine blocks, cylinder heads, tanks, containers, frames, lorry tipper.

Base materials

| DIN | Material N° |
|------------|-------------|
| G-AlSi6Cu4 | 3.2151 |
| AlMgSi1 | 3.2315 |
| G-AlSi5Mg | 3.2341 |
| G-AlSi7Mg | 3.2371 |
| AlMgSi0,5 | 3.3206 |
| AlMgSi0,7 | 3.3210 |
| AlMg1SiCu | 3.3211 |

Typical Weld Metal Composition (%)

| Si | Cu | Fe | Mg | Mn | Zn | Ti | Be | Al | O/E | O/T |
|-----|------|-----|-------|-------|-------|------|--------|------|-------|-------|
| 5.2 | 0.01 | 0.2 | 0.002 | 0.002 | 0.001 | 0.01 | 0.0001 | Bal. | <0.05 | <0.15 |

All Weld Metal Mechanical Properties

| $R_{p0,2}$ (MPa) | R_m (MPa) | A_5 (%) | Hardness |
|--------------------|---------------|-------------|----------|
| 150 | 230 | 18 | ~50 HB |

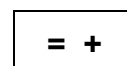
Welding Current & Instructions

| Electrode | ØxL (mm) | 2,5x350 | 3,2x350 | 4,0x350 |
|-----------|------------|---------|---------|---------|
| Current | (A) | 60 | 90 | 120 |

Clean the weld zone; preheat massive pieces (more than 6mm of thickness) to 150-250°C. In order to avoid all risks of porosity, weld with a short arc and guide the electrode at 90° to the piece to be welded. Use a fast travel speed, remove slag between passes and when finished.

Warning! Aluminium electrodes are very sensitive to humidity pick-up. Therefore, keep the opened tins in a dry place. In case of humidity pick-up, dry the electrodes 2h/100°C.

FT En-305-181008



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