

# Speedmet Ltd.

A Welding Alloys Group company



## **DATA SHEET SPEEDMET® WIRE FOR WELDING**

**Grade:** ER5183 (AlMg4.5Mn0.7(A))

### Chemical Analysis (wt%)

| Si   | Fe   | Cu     | Mn          | Mg        | Cr          |
|------|------|--------|-------------|-----------|-------------|
| 0.40 | 0.40 | 0.10   | 0.5 – 1.0   | 4.3 – 5.2 | 0.05 – 0.25 |
| Zn   | Ti   | Be     | Others Each | Total     | Al          |
| 0.25 | 0.15 | 0.0003 | 0.05        | 0.15      | Rem.        |

Values are a maximum unless a range is shown.

### Specifications

EN ISO 18273:2015, AWS A5.10/A5.10M:2021

### Typical Physical Properties

Density: 2.66kg/dm<sup>3</sup>  
Melting Range: 570 – 640°C  
Thermal Conductivity: ~109W/m-K, ~27.7% IACS  
Electrical Resistivity: ~6.1x10<sup>-5</sup> Ω cm, ~28.3% IACS

### Welding Characteristics

Parent Metals: AlMg alloys with high Mg content eg 5083, 5056  
AlZn and AlZnMg alloys  
Welding Process: MIG or TIG  
Anodising: Fair  
Corrosion Resistance: Fair  
Conductivity: Poor

### Mechanical Properties of Weld Metal

Tensile Strength: >275Mpa  
0.2% Proof Stress: >125Mpa  
Elongation: 17% typical

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