

## OK Autrod 18.22

Continuous solid wire suitable for welding of aluminium alloys with more than 3 % Mg, e.g. AlMg4.5Mn, AlMg5Mn and AlMg5Cr, where high tensile strength is required. Can also be used for materials of type AlMgSiCu and AlSi1MgMn and weldable AlZnMg-alloys, like AlZn4.5Mg1. The welding wire has small additions of Zr which increases the finegrained structure of weld deposit and makes it less sensitive to hot cracking during welding.

|                      |                           |
|----------------------|---------------------------|
| <b>Alloy Type</b>    | AlMgMn                    |
| <b>Shielding Gas</b> | I1, I2, I3 (EN ISO 14175) |

| Typical Tensile Properties |                |                  |            |
|----------------------------|----------------|------------------|------------|
| Condition                  | Yield Strength | Tensile Strength | Elongation |
| As Welded                  | 160 MPa        | 330 MPa          | 25 %       |

| Typical Charpy V-Notch Properties |                     |              |
|-----------------------------------|---------------------|--------------|
| Condition                         | Testing Temperature | Impact Value |
| As Welded                         | 20 °C               | 26 J         |

| Typical Wire Composition % |      |       |      |      |     |     |
|----------------------------|------|-------|------|------|-----|-----|
| Mn                         | Si   | Al    | Cu   | Ti   | Zr  | Mg  |
| 0.8                        | 0.06 | 92.93 | 0.03 | 0.03 | 0.1 | 5.8 |

| Recommended Welding Parameters |               |         |
|--------------------------------|---------------|---------|
| Current                        | Wire Diameter | Voltage |
| 140-260 A                      | 1.2 mm        | 20-29 V |
| 140-300 A                      | 1.2 mm        | 20-29 V |