

## OK Autrod 5356

OK Autrod 5356 is the most widely used welding alloy and can be classified as a general purpose type filler alloy. OK Autrod 5356 is typically chosen because of its relatively high shear strength. The 5XXX alloy base material, welded with OK Autrod 5356, with a weld pool chemistry greater than 3 % Mg and service temperatures in excess of 65 °C are susceptible to stress corrosion cracking. The alloy is non-heat treatable.

| Specifications         |                                                                                                                                                                           |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Classifications</b> | JIS Z 3232 : A53556<br>SFA/AWS A5.10 : ER5356<br>EN ISO 18273 : S Al 5356 (AlMg5Cr(A))                                                                                    |
| <b>Approvals</b>       | ABS : ER5356<br>BV : WB<br>CE : EN 13479<br>CWB : AWS A5.10/A5.10M: ER5356<br>DB : 61.039.01<br>DNV-GL : 5356<br>JIS : Z 3232<br>LR : WB/I1<br>RINA : WC<br>VdTÜV : 04664 |

Approvals are based on factory location. Please contact ESAB for more information.

|                   |       |
|-------------------|-------|
| <b>Alloy Type</b> | AlMg5 |
|-------------------|-------|

| Typical Tensile Properties |                |                  |            |
|----------------------------|----------------|------------------|------------|
| Condition                  | Yield Strength | Tensile Strength | Elongation |
| As Welded                  | 120 MPa        | 265 MPa          | 26 %       |

| Typical Wire Composition % |      |      |       |      |      |      |      |
|----------------------------|------|------|-------|------|------|------|------|
| Mn                         | Si   | Cr   | Al    | Cu   | Zn   | Fe   | Mg   |
| 0.13                       | 0.05 | 0.12 | 94.56 | 0.01 | 0.01 | 0.13 | 4.90 |

| Deposition Data |           |         |
|-----------------|-----------|---------|
| Diameter        | Current   | Voltage |
| 0.8 mm          | 60-170 A  | 13-24 V |
| 0.9 mm          | 60-170 A  | 13-24 V |
| 1.0 mm          | 90-210 A  | 15-26 V |
| 1.2 mm          | 140-260 A | 20-29 V |
| 1.6 mm          | 190-350 A | 25-30 V |
| 2.4 mm          | 280-400 A | 26-31 V |

| Recommended Welding Parameters |               |         |
|--------------------------------|---------------|---------|
| Current                        | Wire Diameter | Voltage |
| 60-170 A                       | 0.8 mm        | 13-24 V |
| 90-275 A                       | 1.0 mm        | 15-26 V |
| 140-300 A                      | 1.2 mm        | 20-29 V |
| 190-350 A                      | 1.6 mm        | 25-30 V |
| 280-400 A                      | 2.4 mm        | 26-31 V |