OK Autrod 5183

OK Autrod 5183 was developed to provide the highest strengths possible in the as welded condition of alloy AA 5083 and other similar high magnesium alloys. The more common OK Autrod 5356 will typically fail to meet the as-welded tensile requirements of AA 5083. The alloy is typically utilised in marine and structural applications where high strengths, high fracture toughness for impact resistance and exposure to corrosive elements are important. The alloy is not recommended for elevated temperature applications due to its susceptibility to stress corrosion cracking. The alloy is non-heat treatable.

Specifications	
Classifications	SFA/AWS A5.10 : ER5183 EN ISO 18273 : S Al 5183 (AlMg4,5Mn0,7(A))
Approvals	ABS : ER 5183 BV : WC CE : EN 13479 ClassNK : KAl5RCG(I) CWB : ER5183 DB : 61.039.03 DB : 61.039.03 DB : 61.039.03 DNV-GL : 5183 LR : WC1/I-1,WC1/I-3 RINA : WC (*) VdTÜV : 04666

Alloy Type	AlMgMn

Typical Charpy V-Notch Properties	
Testing Temperature	**Impact Value**
20 °C (68 °F)	90 J (66 ft-lb)

Typical Wire Composition %								
Mn	**Si**	**Cr**	**Al**	**Cu**	**Ti**	**Zn**	**Fe**	**Mg**
0.65	0.04	0.08	94.200	0.01	0.100	0.01	0.13	4.9

Deposition Data		
Diameter	**Current**	**Voltage**
0.8 mm (.030 in.)	60-170 A	13-24 V
1.0 mm (.040 in.)	90-210 A	15-26 V
1.2 mm (.045 in.)	140-260 A	20-29 V
1.6 mm (1/16 in.)	190-350 A	25-30 V
2.4 mm (3/32 in.)	280-400 A	26-31 V

Recommended Welding Parameters		
Current	**Wire Diameter**	**Voltage**
280-320 A	1.6 mm (1/16 in.)	24-28 V
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