Product Data Sheet

W 'Tungsten inert gas arc welding'

OK Tigrod 5183

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
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REASON FOR ISSUE

Classification update and comment to mechanical data added.

GENERAL

OK Tigrod 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 Tigrod 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.

Shielding Gas: I1, I3 (EN ISO 14175) **Alloy Type:** AlMgMn

CLASSIFICATIONS Wire Electrode

SFA/AWS A5.10	R5183
EN ISO 18273	S Al 5183 (AlMg4,5Mn0,7(A))
JIS Z 3232	A5183

APPROVALS

ABS	ER5183 for dim. 0.8 to 3.2 mm
CE	EN 13479
CWB	AWS A5.10
DB	61.039.04
JIS	JIS Z 3232
VdTÜV	04667

CHEMICAL COMPOSITION

Wire/Strip (%)

	Min	Max
Si		0.40
Mn	0.50	1.00
Cr	0.05	0.25
Cu		0.10
Ti		0.15
Zn		0.25
Fe		0.40
Be		0.0003
Mg	4.3	5.2
Other each		0.05
Others tot		0.15

MECHANICAL PROPERTIES OF WELD METAL

All Weld Metal

Properties	As welded Min
Rp0.2 (MPa)	125
Rm (MPa)	275
A4-A5 (%5D)	17

Comments:

THIS INFORMATION IS BASED ON DATA DEVELOPED UNDER LABORATORY CONDITIONS AND IS DESIGNED AS A GUIDELINE ONLY. INDIVIDUAL CONDITIONS, WELDING EQUIPMENT AND ENVIRONMENT CAN AFFECT RESULTS.

OTHER DATA

Clean material is essential for a good weld quality. Remove oxide, dirt, oil, humidity etc. before welding. If brushing use a stainless steel wire brush. Preheating to 65 °C can be used to reduce risk of porosity.