TENACITO R

OERLIKON

MMA Electrodes
C-Mn and low-alloy steels

Basic coated electrode producing tough and crack-free welded joints, also suited for welding steels having a carbon content of up to 0,6 %. The weld metal has a very low hydrogen content and is resistant to ageing. Approved for rail joint welding. Very good gap bridging properties. Owing to its double coating (up to 3,2 mm) this electrode features a stable and concentrated arc and is therefore well-suited for positional welding. Welds are of X-ray quality. CTOD-tested for offshore applications.

Classification	
AWS	A5.1: E7018-1-H4
EN	499: E 42 6 B 42 H 5
EN ISO	2560-A: E 42 6 B 42 H5

Approvals	Grades
ABS	
BV	
DB	
DNV	
GL	
LRS	
TÜV	

see Appendix, Classification Society Approvals, for details pag. 521

Analysis of all-weld metal (Typical values in %)

C	Mn	Si	P	S	Cr	Ni	Mo	Nb	V	N	Cu
0.06	1.50	0.30	≤ 0.015	≤ 0.012	-	-	-	-	-	-	-

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength N/mm²	Tensile Strength N/mm²	Elongation A5 (%)	Impact Energy ISO - V (J) - 60 °C	Hardness
PWHT 580 °C x 15 h	≥ 420	500-640	≥ 25	≥ 90	-
As Welded	≥ 420	500-640	≥ 25	≥ 90	-

Materials

S(P)235-S(P)420, GP240-GP280; L245-L415

Storage and redrying

Keep dry and avoid condensation.
HD ≤ 5: Re-dry at 340-360 °C for 2 hours, 5 times max.
HD ≤ 10: Re-dry at 300-350 °C for 2 hours, 5 times max

Current condition and welding position

DC+

Packaging data

Diameter (mm)	Length (mm)	Current (A)	Electrode average weight (g)	Weld metal weight per electrode (g)
2,5	350	65-95	19,9	12,3
3,2	350	90-140	33,7	21,2
4,0	450	140-185	66,9	43,2
5,0	450	180-240	106,3	67,0