

## AA M690

**CATEGORY** FCAW Flux-Cored

**TYPE** Seamless high strength metal-cored wire for M21 without slag.

**APPLICATIONS** Crane-, plant-, craft-, lifting and steel construction, pipe work, foundries.

**PROPERTIES** Remarkable crack resistant weld metal in combination with very low (<3ml/100gr) hydrogen content. Therefore, suitable for the economic processing of high-strength and low temperature fine grained structural steels. Excellent welding properties in short and spray arc. High deposition rate and no intermediate cleaning required with very low spatter loss. Excellent wetting properties compare to solid wires that results in a bigger parameter range and improved duty cycle for the welder.

**CLASSIFICATION**

AWS	5.28: E 110 C-K4 H4
	5.28M: E76C-K4 H4
EN ISO	18276-A: T 69 6 Mn2NiCrMo M M 1 H5

**SUITABLE FOR** Naxtra 70, Weldox 700, S690, S620, EStE 690, 690V, XABO 620, X80, S620Q11, S690QL1, S600MC, S700MC, Naxtra 63, Naxtra 70, Optim 700 mc plus, TStE620, TStE690, Weldox 500, Hardox, L480 - L550, X65, X80, X90, X100, Hardox 400, XAR 400, Dilidur 400, Domex, 20MnCr65, 28CrMn43, ASTM: A 517, A 537, A 625, HY100, 16NiCrMo12-6, Oceanfit 100, Oceanfit 690

**APPROVALS** LRS (5Y69), DNV (5Y69), TÜV, CE approved

**WELDING POSITIONS:**



**WELD METAL ANALYSIS % (TYPICAL VALUES FOR M21)**

C	Mn	Si	Cr	Ni	Mo	P	S
0.05	1.6	0.4	0,5	2,2	0,5	<0.015	<0.015

**MECHANICAL PROPERTIES**

Heat Treatment	R <sub>p0,2</sub> (N/mm <sup>2</sup> )	R <sub>m</sub> (N/mm <sup>2</sup> )	A <sub>5</sub> (%)	Impact Energy (J) ISO-V			Hardness HRC / HV
				-20°C	-40°C	-60°C	
AW	>690	780-960	>17	>69	>69	>69	
SR	>670	760-850	>17	>60	>60	>47	

AW: as welded, SR: stress relieved 580°C / 2hr

**WELDING PARAMETERS PACKING**

Welding Parameters			Packing		
D (mm)	Voltage (V)	Current (A) DC+	spool type	kg / spool / drum	kg / pallet
1,0	14-26	70-230	D-200 / K-300 / Drum	5 / 16 / 300	1000 / 1024 / 600
1,2	14-31	90-310	D-200 / K-300 / Drum	5 / 16 / 300	1000 / 1024 / 600
1.6	17-36	120-380	D-200 / K-300 / Drum	5 / 16 / 300	1000 / 1024 / 600

**REDRYING TEMPERATURE** Not required

**GAS ACC. EN ISO 14175:** M21