

## AA R620

<b>CATEGORY</b>	FCAW Flux-Cored	
<b>TYPE</b>	Seamless micro alloyed rutile cored wire with slag for M21	
<b>APPLICATIONS</b>	Offshore, Shipbuilding, pressure vessels, orbital pipe work, riser pipes, pipe lines, fine grain steels with yield strength up to 620 MPa (90 ksi).	
<b>PROPERTIES</b>	Excelent weld puddle manipulation and overal welding properties with extreme low hydrogen content (below 3 ml/100 gr. weld metal). Due to the addition of molybdenum suitable for post weld heat treatment respecting the impact properties.	
<b>CLASSIFICATION</b>	AWS	5.29: E101T1-K3M H4
	EN ISO	18276-A: T 62 4 Mn1,5NiMo P M 1 H5

<b>SUITABLE FOR</b>	<b>Material to be welded</b>	<b>Grade</b>
	Shipbuilding steels Unalloyed structural steels Boiler steels Pipe steels Fine grain structural steels Steels to API-standard X80, 4130, 8630 etc.	A, B, D, AH 32 - EH 36 Rel < 620 MPa A 517, A 537 Rel < 620 MPa P500GH - P620GH Rel < 620 MPa P500T1/T2 - P620NL2 - L620MB Rel < 620 MPa S500 - S620QL1 Rel < 620 MPa up to X90

<b>APPROVALS</b>	CE approved.
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<b>WELDING POSITIONS:</b>	
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### WELD METAL ANALYSIS % (TYPICAL VALUES M21)

C	Mn	Si	Cr	Ni	Mo	P	S
0,08	1,4	0,5	-	1,7	<0,38	<0,015	<0,015

### MECHANICAL PROPERTIES

Heat Treatment	R <sub>p0,2</sub> (N/mm <sup>2</sup> )(ksi)	R <sub>m</sub> (N/mm <sup>2</sup> )(ksi)	A <sub>5</sub> (%)	Impact Energy (J) ISO-V			Hardness HRc / HV
				0°C	-20°C	-40°C	
AW	> 620 (90)	690-830 (100 - 121)	>18	>72	>60	>47	
PWHT	> 620 (90)	690-790 (100 - 121)	>20			>32	

AW: as welded / pWHT 620°C/1 hr

### WELDING PARAMETERS / PACKING

Welding Parameters			Packing		
D (mm)	Voltage (V)	Current (A) DC+	type spool / drum	kg / spool / drum	kg / pallet
1,0	19-25	140-230	D-200 / K-300 / Drum	5 / 16 / 300	1000 / 1024 / 600
1,2	21-29	160-280	D-200 / K-300 / Drum	5 / 16 / 300	1000 / 1024 / 600
1,6	23-32	190-350	D-200 / K-300 / Drum	5 / 16 / 300	1000 / 1024 / 600

<b>REDRYING TEMPERATURE</b>	Not required
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<b>GAS ACC. EN ISO 14175:</b>	M21
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