

AA R690

CATEGORY FCAW Flux-Cored

TYPE Seamless micro-alloyed rutile flux-cored wire for high strength steels

APPLICATIONS Shipbuilding, steel and vessel construction, mechanical engineering and pipe work, offshore, crane building, lifting, platforms. Steels with yield strength up to 690 MPa (100 ksi).

PROPERTIES **“The first seamless rutile FCW with extreme low hydrogen for S690”**
Excellent for use in positional welding where high deposition rate is required, suitable for temperatures down to -60° Celsius. Excellent for use on ceramic backing and Mag orbital welding in all positions. Extreme low spatter properties and excellent arc stability with fast freezing slag. **CTOD tested !**

CLASSIFICATION
AWS 5.29: E 111 T1-K3M-JH4
5.29M: E761T1-K3M-J H4
EN ISO 18276-A: T 69 6 ZPM1H5

SUITABLE FOR StE690,7 TM, L690M, S690G1QL1, S690, Weldox 700, Naxtra 70, Dilimax, S550, S620, 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, 20MnCr65, 28CrMn43, Domex, ASTM: A 517 Gr A - P A 572 Gr 65, Oceanfit 100, Oceanfit 690

APPROVALS Lloyds (4Y69), DNV (5Y69), TUV, CE approved

WELDING POSITIONS:



WELD METAL ANALYSIS UNDER M21

C	Mn	Si	Cr	Ni	Mo	P	S
<0.08	1.70	0.50	-	2.0	-	<0.015	<0.015

MECHANICAL PROPERTIES

Heat Treatment	R _{p0.2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V			Hardness HRC / HV
				-20°C	-40°C	-60°C	
AW	>690	770-940	>17		>69	>47	

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

WELDING PARAMETERS / PACKING

Welding Parameters			Packing		
D (mm)	Voltage (V)	Current (A)	spooling type	kg / spool / Drum	kg / pallet
1.0	19-25	140-230	D-200 / K-300 / Drum	5 / 16 / 300	1000 / 1024 / 600
1.2	23-32	190-350	D-200 / K-300 / Drum	5 / 16 / 300	1000 / 1024 / 600

REDRYING TEMPERATURE Not required

GAS ACC. EN ISO 14175: M21