

UltraFil™ R690M Seamless Flux Cored Wire

Key Features

- ▶ Premium copper coated gas shielded flux cored wire – excellent mechanical properties
- ▶ Seamless wire technology ensures hydrogen levels stay at H4/H5 levels even after long term storage
- ▶ Smooth spray transfer achieved at low welding current levels - minimal spatter
- ▶ Designed for use with mixed gas operation, Argon 15-25% CO₂
- ▶ Diffusible hydrogen typically less than 3 mls per 100gms deposited metal [per AWS A4.3]

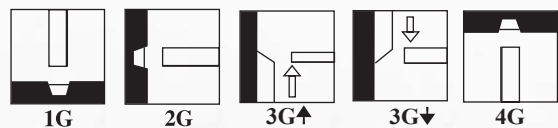
Typical Applications

- ▶ Full positional welding of quenched and tempered high strength steels - e.g. Bisplate 80, HY100, Weldom 700, S690 plate, X80 pipe
- ▶ General and high integrity fabrication of mining and mineral processing equipment such as truck trays, dragline/shovel components and crusher/sizer components, high strength pipe spooling and other heavy equipment where high strength steels are used
- ▶ High integrity welded joints subject to high restraint and possible hydrogen assisted cold cracking (HACC)
- ▶ Suitable for fillet, butt and build-up welding applications

Conformances

AWS A5.29	E111T1-K3M-JH4
AWS A5.29M	E761T1-K3M-JH4
AWS A5.36	E111T1-M21A2-K3-H4 E111T9-M21A2-K3-H4
AWS A5.36M	E76T1-M21A3-K3-H4 E76T9-M21A3-K3-H4
AS/NZS ISO 18276-A	T 69 3 Mn2NiMo P M 1 H5
AS/NZS ISO 18276-B	T 76 3 T1-1 M A-N4M2-U H5

Welding Positions



Shielding Gas

- ▶ M21 shielding gases
- ▶ Flow Rate: 15 - 20 L/min



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Diameter / Packaging / Part Number / Settings

Diameter mm	Plastic S300 Spool 15kg	WFS m/min	WFS in/min	Voltage volts	Approx Current amps	Deposition Rate (max)	ESO (Stickout)
1.2	P/N: 17-1218	5.1 - 12.7	200-500	23-30	180-300	5.4 kg/hr	15-20mm
1.6	P/N: 17-1618	3.6 - 8.9	140-350	21-31	235-400	5.9 kg/hr	20-25mm

Polarity: DC Electrode Positive (DC+)

Typical Mechanical Properties

	Yield Strength MPa	Tensile Strength MPa	Elongation %	Charpy V-Notch J @ -30°C
Argon +20% CO ₂	750	800	20	70

Typical Weld Composition / Diffusible Hydrogen Content

	%C	%Mn	%Si	%Ni	%Mo	%P	%S	Diffusible Hydrogen
Argon +20% CO ₂	0.06	1.64	0.44	2.14	0.30	0.010	0.003	2 mls / 100gms

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