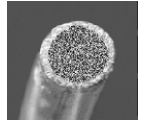




Seamless flux-cored wire

STEIN-MEGAFIL[®] 690 R



- Type:** Micro-alloy rutile flux-cored wire with rapidly solidifying slag for Ar-CO₂ mix.
- Applications:** Shipbuilding, steel and vessel construction, mechanical engineering and pipe. Offshore. Steels with yield strength up to 690 MPa (100 ksi). **CTOD tested.**
- Properties:** Excellent weld puddle manipulation, superior out-of-position welding. Using temperature up to - 60 °C (- 76 °F). Particularly suited for MAG orbital welding applications and all-position welding on ceramic backing. Low spatter loss, easy slag removal. Stable mechanical property values of weld metal up to heat input of 15 kJ/cm.
- Classification:**
- | | |
|----------------|--------------------|
| EN ISO 18276-A | T 69 6 Z P M 1 H5 |
| EN ISO 18276-B | T766T1 1MA N4M1 H5 |
| AWS ASME 5.29 | E111T1-K3M-J H4 |
| AWS ASME 5.29M | E761T1-K3M-J H4 |

Materials:	DIN	EN	ASTM
TM-pipe steels	up to StE 690.7 TM	up to L690M	typical A 517 Gr A - P A 572 Gr 65
high-strength fine grain structural steels (tempered)	up to StE 690 V	up to S690QL	
high-strength fine grain structural steels (low temp)	up to EStE 690 VA	up to S690G1QL1	

Approvals: DNV, LR, GL, BV, ABS

Weld metal analysis % (typical values for mixed gas M21 82% Ar / 18% CO₂)

C	Mn	Si	P	S	Ni	Mo
< 0,08	1,7	0,5	< 0,015	< 0,015	2,0	0,3

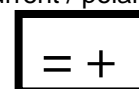
Mechanical properties of the pure weld metal (typical values for mixed gas)

Heat-treatment	R _{p0,2} MPa (ksi)	R _m MPa (ksi)	A5 %	Charpy V Notch [J] (ft.lb)	
				- 40 °C (- 40 °F)	- 60 °C (- 76 °F)
AW	≥ 690 (100)	770 - 900 (112 - 131)	> 17	> 69 (51)	> 47 (35)

AW: as welded

Diameters: Ø 1,0 - 1.2 mm (0.04 - 0.045 inch)
Packaging information: see chapter H

current / polarity



welding position

