

Pipeweld 70S-6 Plus

Pipeweld 70S-6 Plus is a copper free solid wire of very high purity for downhill circumferential GMAW welding on pipe qualities API 5L, Grade X52 to Grade X70. The electrode permits welding with high current (spray-arc) and also with short circuiting transfer in all positions.

Specifications

Classifications	EN ISO 14341-A : G 42 2 C1 4Si1 EN ISO 14341-A : G 46 3 M21 4Si1 EN ISO 14341-A : G 4Si1 SFA/AWS A5.18 : ER70S-6
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Alloy Type	Carbon-manganese steel (Mn/Si-alloyed)
Shielding Gas	M20, M21 (and other mixture of Ar and CO ₂), C1 (EN ISO 14175)

Tensile Properties

Testing Condition	Yield Strength	Tensile Strength	Elongation
EN 80Ar/20CO₂ (M21)			
As Welded	545 MPa	600 MPa	26 %
EN CO₂ (C1)			
As Welded	495 MPa	575 MPa	25 %
AWS CO₂ (C1)			
As Welded	470 MPa	575 MPa	29 %

Charpy Testing

Testing Condition	Testing Temp	Impact Value
EN 80Ar/20CO₂ (M21)		
As Welded	20 °C	140 J
As Welded	-30 °C	80 J
As Welded	-20 °C	100 J
EN CO₂ (C1)		
As Welded	-20 °C	80 J
As Welded	20 °C	120 J
AWS CO₂ (C1)		
As Welded	-20 °C	100 J
As Welded	-29 °C	80 J

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Cu
CO₂ (C1)					
0.06	1.05	0.72	0.009	0.009	0.02
80Ar/20CO₂ (M21)					
0.07	1.25	0.82	0.009	0.009	0.02

Typical Wire Composition %

C	Mn	Si
0.090	1.7	1.0