

Pipeweld 71T-1

An all-positional rutile cored wire for pipe welding. The weld metal has a minimum yield strength of 420 MPa with CO₂ shielding gas and 460 MPa with Ar/CO₂ mixed gas.

Specifications

Classifications	SFA/AWS A5.20 : E71T-1C H4 SFA/AWS A5.20 : E71T-1M H8 EN ISO 17632-A : T 42 3 P C1 1 H5 EN ISO 17632-A : T 46 4 P M21 1 H5
Approvals	ABS : 4YSA H10

Approvals are based on factory location. Please contact ESAB for more information.

Welding Current	DC+
Alloy Type	Non alloy
Shielding Gas	M21, C1 (EN ISO 14175)

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
M21 shielding gas			
As Welded	535 MPa (78 ksi)	601 MPa (87 ksi)	25 %
C1 shielding gas			
As Welded	495 MPa (72 ksi)	585 MPa (85 ksi)	25 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
M21 shielding gas		
As Welded	-40 °C (-40 °F)	70 J (52 ft-lb)
C1 shielding gas		
As Welded	-30 °C (-22 °F)	65 J (48 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si
M21 shielding gas		
0.059	1.33	0.63

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	TTW Dist.	Deposition Rate
1.2 mm (.045 in.)	205-230 A	25-27 V	660-965 cm/min (260-380 in./min)	12.7-19 mm (1/2-3/4 in.)	
1.2 mm (.045 in.)	135-205 A	23-26 V	381-660 cm/min (150-260 in./min)	9.5-12.7 mm (3/8-1/2 in.)	
1.2 mm (.045 in.)	150-350 A	23-35 V	5.8-20.7 m/min (2.3-8.1 ft/min)		2.1-7.5 kg/h (4.6-16.5 lbs/h)
1.2 mm (.045 in.)	230-265 A	26-30 V	965-1321 cm/min (380-520 in./min)	19-25.4 mm (3/4-1 in.)	