Dual Shield T-5

Dual Shield T-5 is a basic slag flux cored wire that produces crack resistant, highly ductile weld deposits. The small diameter wires, such as .045 & 1/16" diameters can be used out-of-position. The arc characteristics are globular but can be improved with the use of argon mixes. Dual Shield T-5 is recommended for medium to heavy fabrication of many mild steels where superior toughness and crack resistance are required. It is a good choice for mild steel or when being joined to quenched and tempered low alloy high strength steels. The weld metal analysis is similar to an E7018 or E7018-1 low hydrogen electrode.

Specifications	
Classifications	SFA/AWS A5.20 : E71T-5C-JH4 SFA/AWS A5.20 : E71T-5M-JH4 JIS Z 3313 : YFW-C502B/YFW-A502B KS D 7104 : YFW-C502B/YFW-A502B
Approvals	ABS : 3YSA H10 (M21) BV : SA3YM H10 (M21) BV : SA3YM HH DNV : III YMS H10 (M21) DNV : III YMS H10 (M21) LR : 3S, 3YS H10 (M21) LR : 3YS H5 (C1) LR : 3YS H10 (M21)
Industry	Civil Construction Railcars Mobile Equipment Industrial and General Fabrication

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

Welding Current	DC+
Alloy Type	C Mn

Typical Tensile Properties			
Condition	**Yield Strength**	**Tensile Strength**	**Elongation**
M21			
Stress Relieved 2 hour(s) 621 °C	355 MPa	500 MPa	34 %
As Welded	460 MPa	560 MPa	31 %

Typical Charpy V-Notch Properties		
Condition	**Testing Temperature**	**Impact Value**
M21		
Stress Relieved	-18 °C	236 J
Stress Relieved	-40 °C	140 J
As Welded	-40 °C	96 J
Stress Relieved	-29 °C	178 J
As Welded	-18 °C	130 J
Stress Relieved	-51 °C	125 J
As Welded	-29 °C	110 J
As Welded	-51 °C	80 J

Typical Weld Metal Analysis %				
C	**Mn**	**Si**	**S**	**P**
0.066	1.45	0.52	0.013	0.007

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Deposition Data					
Diameter	**Current**	**Voltage**	**Wire Feed Speed**	**TTW Dist.**	**Deposition Rate**
1.2 mm	154-322 A	22-32 V	6.35-16.51 m/min		1.3-3.1 kg/h
1.6 mm	268-422 A	26-32 V	4.57-10.16 m/min	16.0 mm	3.5-7.9 kg/h

Recommended Welding Parameters				
Current	**Wire Diameter**	**TTW Dist.**	**Voltage**	**Wire Feed Speed**
75% Ar - 25% CO2				
240-300 A	1.2 mm	19-25.4 mm	29-32 V	1143-1651 cm/min
220-280 A	1.6 mm	19-25.4 mm	29-30 V	457-635 cm/min
140-190 A	1.2 mm	19-25.4 mm	19-28 V	635-889 cm/min
300 A	1.2 mm	19-25.4 mm	32 V	1651 cm/min
280-380 A	1.6 mm	25.4-31.75 mm	31-32 V	635-1016 cm/min