Dual Shield 7100 Ultra

FCAW wire for mild steel and 490N/mm2 class high tensile steel. Dual Shield 7100Ultra is a multi-purpose all position flux cored wire for use with CO2 or CO2 /Ar mixed gas.

Specifications	
Classifications	SFA/AWS A5.20 : E71T-1C SFA/AWS A5.20 : E71T-1CH8 SFA/AWS A5.20 : E71T-9C SFA/AWS A5.20 : E71T-9CH8 SFA/AWS A5.20 : E71T-9M SFA/AWS A5.20 : E71T-1M JIS Z 3313 : YFW-C502R/YFL-C503R KS D 7104 : YFW-C502R/YFL-C503R EN ISO 17632-A : T46 2 P C1 1 H10 EN ISO 17632-A : T46 2 P M21 1 H10
Approvals	ABS : 3YSA H10 BV : SA3YM (C1) BV : SA3YM HH CE : EN 13479 CWB : E491T1-C1A3-CS1-H8 CWB : E491T1-M21A3-CS1-H8 DNV-GL : III YMS LR : 3YS H10 (C1) UKCA : EN 13479 VdTÜV : 06616 ABS : 3Y400SA(H10) BV : SA3YM HH CCS : 3SH10, 3YSH10 (C1) ClassNK : KSW53G(C & M2) H10 KR : 3YSG(C)H10 LR : 3Y40S H10 (M21) LR : 3YS H10 (M21) RS : 3YS H10

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

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

Typical Tensile Properties			
Condition	**Yield Strength**	**Tensile Strength**	**Elongation**
AWS			
As Welded	495 MPa	561 MPa	31 %
As Welded	580 MPa	620 MPa	26 %

Typical Charpy V-Notch Properties		
Condition	**Testing Temperature**	**Impact Value**
AWS		
As Welded	-20 °C	84 J
As Welded	-20 °C	90 J
As Welded	-30 °C	55 J

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Typical Weld Metal Analysis %									
C	**Mn**	**Si**	**S**	**P**	**Ni**	**Cr**	**Mo**	**V**	**Cu**
C1									
0.038	1.305	0.546	0.007	0.013	0.022	0.029	0.003	0.019	0.016

Typical Weld Metal Analysis %
Nb
C1
0.013

Deposition Data					
Diameter	**Current**	**Voltage**	**Wire Feed Speed**	**TTW Dist.**	**Deposition Rate**
0.9 mm	90-170 A	23-30 V	5.59-13.97 m/min		1.1-2.9 kg/h
1.2 mm	135-265 A	22-30 V	3.81-13.21 m/min		1.1-4.6 kg/h
1.4 mm	125-350 A	23-31 V	2.79-11.94 m/min	13.0 mm	1.1-5.6 kg/h
1.6 mm	165-415 A	25-32 V	2.79-10.67 m/min	16.0 mm	1.9-7.0 kg/h

Recommended Welding Parameters			
Current	**Wire Diameter**	**Voltage**	**Wire Feed Speed**
130-265 A	1.2 mm	22-29 V	3.8-13.2 m/min
135-355 A	1.4 mm	22-31 V	2.79-11.94 m/min
185-400 A	1.6 mm	24-32 V	2.79-10.67 m/min