

Dual Shield Prime 71 LT H4

A seamless, copper free, cored wire designed to weld thick steel components. The diffusible hydrogen level is consistently below 4ml/100g of deposited weld metal and with the seam of the wire being laser welded this ensures no moisture pick up. The wire is not copper coated which means there is no chance of copper flakes contaminating feed liners, torches and contact tips. Dual Shield Prime 71 LT H4 is designed to weld medium strength steels (>420 MPa, >61 ksi yield strength) and provides excellent impact toughness down to -40 degrees C. Dual Shield Prime 71 LT H4 is designed to be used with either CO₂ (C1) or Ar/CO₂ (M21) shielding gas mixtures.

Specifications

Classifications

EN ISO 17632-B : T494T12 1C1A H5
 EN ISO 17632-B : T494T12 1M21A H5
 SFA/AWS A5.20 : E71T-1C/1M/9C-J/9M-J-H4
 SFA/AWS A5.20 : E71T-12C-J/12M-J-H4
 JIS Z 3313 : T49 4 T1-1 C/M A-H5
 KS D 7104 : YFL-A503R/YFL-C503R
 EN ISO 17632-A : T42 4 P C1 1 H5
 EN ISO 17632-A : T42 4 P M21 1 H5

Approvals

ABS : 4Y400SA H5
 CE : EN 13479
 CWB : E491T1-C1A4-CS2-H4 (E491T-12J-H4)
 CWB : E491T1-M21A4-CS2-H4 (E491T-12MJ-H4)
 DNV : IV Y40MS H5 (C1)
 DNV : IV Y40MS H5 (M21)
 LR : 4Y40S H5
 UKCA : EN 13479

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

Welding Current	DC+
Diffusible Hydrogen	< 4 ml/100g
Alloy Type	C Mn
Shielding Gas	M21, C1 (EN ISO 14175)

Tensile Properties

Testing Condition	Yield Strength	Tensile Strength	Elongation
C1 Shielding gas According to AWS			
As Welded	450 MPa (65 ksi)	525 MPa (76 ksi)	32 %
M21 Shielding gas According to AWS			
As Welded	480 MPa (70 ksi)	540 MPa (78 ksi)	32 %

Charpy Testing

Testing Condition	Testing Temp	Impact Value
C1 Shielding gas According to AWS		
As Welded	-30 °C (-22 °F)	97 J (72 ft-lb)
As Welded	-40 °C (-40 °F)	54 J (40 ft-lb)
M21 Shielding gas According to AWS		
As Welded	-40 °C (-40 °F)	78 J (58 ft-lb)
As Welded	-30 °C (-22 °F)	117 J (87 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	Ni
0.04	1.30	0.40	0.45

MILD STEEL

GAS-SHIELDED FLUX-CORED WIRES (FCAW/MCAW)



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Deposition Data

Diameter	Amps	Volts	Wire Feed Speed	Deposition Rate
1.2 mm (0.045 in.)	170-310 A	25-35 V	6.0-16.5 m/min (236-650 in./min)	2.5-6.2 kg/h (5.5-13. lbs/h)
1.6 mm (1/16 in.)	180-420 A	24-38 V	3.0-13.0 m/min (118-512 in./min)	1.8-7.5 kg/h (4.0-16. lbs/h)