

Dual Shield 69

An all-positional rutile cored wire for welding high strength steel with a minimum yield strength of 690 MPa and excellent toughness down to -60°C. For use with M21 shielding gas.

Specifications

Classifications	SFA/AWS A5.29 : E111T1-GM EN ISO 18276-A : T 69 6 Z P M21 2 H5
Approvals	ABS : 4YQ690 SA H5 ABS : 4YQ690SA H5
Industry	Civil Construction Offshore Oil

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

Welding Current	DC+
Alloy Type	Low Alloy (Ni-Mo)
Shielding Gas	M21 (EN ISO 14175)

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
PWHT 1 hour(s) 580 °C	806 MPa	848 MPa	20.2 %
As Welded	740 MPa	790 MPa	20 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
PWHT 1 hour(s) 580 °C	-30 °C	54 J
PWHT 1 hour(s) 580 °C	-40 °C	51 J
As Welded	-40 °C	65 J
PWHT 1 hour(s) 580 °C	-50 °C	54 J
PWHT 1 hour(s) 580 °C	-60 °C	44 J
As Welded	-60 °C	58 J

Typical Weld Metal Analysis %

C	Mn	Si	Ni	Mo
0.095	1.25	0.34	2.8	0.4

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
1.2 mm	150-350 A	21-32 V	5.6-19.8 m/min	2.1-7.5 kg/h