

Sureweld 7024



Sureweld 7024 is a high speed, heavy-coated, iron powder electrode for high deposition rates on horizontal and downhand welding. Excellent operator appeal, produces equal 45 deg; fillets, thereby eliminating over welding. Excellent bead appearance and self-cleaning slag. This electrode has good weldability and superior mechanical properties. It is particularly useful in obtaining increased penetration with little or no root porosity in horizontal or positioned fillets. Sureweld 7024 is ideal for making high speed horizontal fillet and lap welds on mild and some alloy steels, such as earthmoving and construction equipment, truck bodies, ships, barges and railcars. Sureweld 7024 exceeds the AWS A5.1 elongation % and Charpy V-Notch requirements for 7024-1.

Classifications	AWS A5.1 : E7024 ASME SFA 5.1
Approvals	ABS CWB CSA W48 E4924
Industry	Barges Industrial and General Fabrication Mobile Equipment Railcars

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

Welding Current	DC+, DC- or AC
Coating Type	Iron powder, titania

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Reduction in Area	Elongation
As Welded	490 MPa (71 ksi)	550 MPa (81 ksi)	63 %	26 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
As Welded	-18 °C (0 °F)	34 J (25 ft-lb)

Typical Weld Metal Analysis %

C	Mn	Si	S	P
0.06	0.80	0.30	0.018	0.01

Deposition Data

Diameter	Optimal Amps	Current	Deposition Rate	Deposition Efficiency %
4.0 mm (5/32 in.)	180 A	180-240 A	2.4 kg/h (5.3 lb/h)	71.3 %
4.0 mm (5/32 in.)	210 A	180-240 A	2.9 kg/h (6.3 lb/h)	72.5 %
4.0 mm (5/32 in.)	240 A	180-240 A	3.3 kg/h (7.2 lb/h)	69.4 %
4.8 mm (3/16 in.)	245 A	250-290 A	3.4 kg/h (7.5 lb/h)	69.2 %
4.8 mm (3/16 in.)	270 A	250-290 A	3.8 kg/h (8.3 lb/h)	70.5 %
4.8 mm (3/16 in.)	290 A	250-290 A	4.1 kg/h (9.1 lb/h)	68 %
5.6 mm (7/32 in.)	320 A	300-340 A	4.3 kg/h (9.4 lb/h)	72.4 %
5.6 mm (7/32 in.)	360 A	300-340 A	5.3 kg/h (11.6 lb/h)	69.1 %
6.4 mm (1/4 in.)	400 A	350-400 A	5.7 kg/h (12.6 lb/h)	71.7 %