

EM 180

Basic Coated Electrode - Fine Grained-High Strength Steels

Standards	
AWS/ASME SFA - 5.5	E11018-G H4
EN ISO 18275 - A	E 69 6 Mn2NiCrMo B 42 H5
TS EN ISO 18275 - A	E 69 6 Mn2NiCrMo B 42 H5

Approvals & Certificates		
TUV	GOST	CE
Materials		
Width	DIN	
S620Q - S690Q	StE 620 - StE 690	
S620QL1 - S690QL1	ESStE 620V - ESStE 690	

Properties and Applications

Heavy coated basic type electrode for welding fine grained and high strength structural steels which have yield strength up to 690N/mm² and tensile strength to 850N/mm². Suitable for welding high strength steels used in fabrications of crane, earthmoving equipment, heavy machinery parts. Due to its high toughness, crack resistance even under difficult operating conditions such as dynamic loads, high and low environmental temperatures, it is suitable for use in steel constructions, pressure vessels, tanks, boilers and special fabrications and in their root pass applications with safety. Weld deposit is of extremely high metallurgical purity and very low hydrogen content. The electrode features a stable and concentrated arc. Especially 2,50 mm and 3,25 mm diameters well suited for easy positional welding. Welds are of ray quality.



Typical Chemical Values of Weld Metal

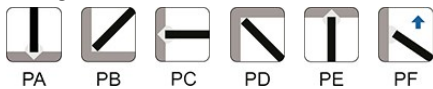
Type of Analysis	C	Si	Mn	CR	Ni	Mo
Weld Deposit	0.05	0.30	1.60	0.40	2.20	0.45

Typical Mechanical Values of Weld Metal

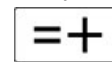
Test Condition	Yield Strength (N/mm ²)	Tensile Strength (N/mm ²)	Elongation A5 (%)	Charpy V-Notch Properties (J)
As welded	775	890	18	-60°C → 50

Application Information

Welding Positions



Polarity:



Welding Parameters & Efficiency

Diameter x Length (mm)	Current (A)
2.50x350	60-90
3.25x350	90-140
4.00x450	130-190
5.00x450	180-230
6.00x450	250-310

Packaging Information

Product Code	Diameter x Length (mm)	Quantity per Box	Box Gross Weight (kg)	Boxes per Outer Box	Outer Box Gross Weight (kg)	Packaging Type
12011HKEM2	2.50x350	130 pcs	2.54	6	15.50	VAC Box
12011HREM2	2.50x350	259 pcs	5.07	3	15.40	Cardboard Box
12011NKEM2	3.25x350	72 pcs	2.54	6	15.50	VAC Box
12011NREM2	3.25x350	144 pcs	5.07	3	15.40	Cardboard Box
12011SSEM2	4.00x450	97 pcs	6.58	3	19.90	Cardboard Box
12011VSEM2	5.00x450	59 pcs	6.58	3	19.90	Cardboard Box

12011XSEM2	6.00x450	42 pcs	6.58	3	19.90	Cardboard Box
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Storage & Re-Drying Information

It can be dried maximum 5 times.
It should be stored in a dry room (relative humidity < 50%, room temperature > 20°C) on wooden pallets.
It has to be dried at 350°C for 2 hours.