

# EM 172

Basic Coated Electrode - Fine Grained-High Strength Steels

Standards	
AWS/ASME SFA - 5.5	E8018-C2
EN ISO 2560 - A	E 46 6 3Ni B 42
TS EN ISO 2560 - A	E 46 6 3Ni B 42

**Properties and Applications**

Heavy coated basic type electrode for welding fine grained structural steels and especially cryogenic steels. Electrode produces tough and crack-free welded joints. Weld deposit is of extremely high metallurgical purity and very low hydrogen content. Owing to high crack resistance under difficult conditions such as dynamic loads and low service temperatures up to -150°C. It is suitable for use in welding of storage tanks and piping which are subjected to low temperatures. Electrode features a stable and concentrated arc. Especially 2,50 mm and 3,25 mm diameters are well-suited for positional welding. Welds are of X-ray quality.

Approvals & Certificates
GOST

Materials	
Width	DIN
S225NL	TTSt 35 V
S255NL - S420NL	TSIE 255 - TSIE 420
12Ni14	10 Ni 14

Typical Chemical Values of Weld Metal				
Type of Analysis	C	Si	Mn	Ni
Weld Deposit	0.05	0.30	0.90	3.50

Typical Mechanical Values of Weld Metal				
Test Condition	Yield Strength (N/mm <sup>2</sup> )	Tensile Strength (N/mm <sup>2</sup> )	Elongation A5 (%)	Charpy V-Notch Properties (J)
As welded	500	570	22	-60°C → 50

**Application Information**

Welding Positions: PA, PB, PC, PD, PE, PF

Polarity:

Welding Parameters & Efficiency

Diameter x Length (mm)	Current (A)
2.50x350	60-90
3.25x350	90-140
4.00x450	130-180

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
12008HREM2	2.50x350	234 pcs	4.57	3	13.90	Cardboard Box
12008NREM2	3.25x350	133 pcs	4.57	3	13.90	Cardboard Box
12008SSEM2	4.00x450	100 pcs	6.58	3	19.90	Cardboard Box

**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.