

EM 171

Basic Coated Electrode - Fine Grained-High Strength Steels

Standards	
AWS/ASME SFA - 5.5	E8018-C1 H4
EN ISO 2560 - A	E 46 6 2Ni B 42 H5
TS EN ISO 2560 - A	E 46 6 2Ni B 42 H5

Properties and Applications

Heavy coated basic type electrode for welding fine grained structural steels and especially cryogenic steels, subjected to low service temperatures up to -60°C. 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, impact, vibration and low service temperatures, it is suitable for use in welding of storage tanks and piping. Suitable for use in root passes and joints in pipes and equipments of cold storage rooms with service temperatures down to -60°C. Electrode features a stable and concentrated arc. Especially 2,50 mm and 3,25 mm diameters are well-suited for positional welding. Welds are X-ray quality.

Approvals & Certificates		
CE	TUV	TSE
GOST		

Materials	
Width	DIN
S255NL - S420NL	TSIE 255 - TSIE 420
S255N - S420N	StE 255 - StE 420
12Ni14	10 Ni 14
S225NL	TT St 35N

Typical Chemical Values of Weld Metal					
Type of Analysis	C	Si	Mn	Ni	Cu
Weld Deposit	0.05	0.30	1.00	2.40	0.08

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	490	580	27	-60°C → 100
Isil İşlem Sonrası(605°C 1 Saat)	470	550	29	-60°C → 120

Application Information

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

Polarity: = +

Diameter x Length (mm)	Current (A)
2.50x350	60-90
3.25x350	90-140
4.00x450	130-180
5.00x450	190-230
6.00x450	260-340

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
12007HREM2	2.50x350	217 pcs	4.57	3	13.90	Cardboard Box
12007NKEM2	3.25x350	73 pcs	2.54	6	15.50	VAC Box
12007NREM2	3.25x350	131 pcs	4.57	3	13.90	Cardboard Box
12007SSEM2	4.00x450	96 pcs	6.58	3	19.90	Cardboard Box
12007VSEM2	5.00x450	64 pcs	6.58	3	19.90	Cardboard Box
12007XSEM2	6.00x450	46 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.