

MMA Electrodes Nickel and Copper alloys

Basic coated MMA electrode for welding highly corrosion-resistant Cr-Mo-Nickel base alloys, such as 625, 825 and similar alloys. Also suitable for molybdenum alloyed corrosion-resistant steels, e.g. 7%Mo, such as X1NiCrMoCuN25-20-7 and cryogenic toughness nickel steels. Very resistant to stress corrosion cracking and pitting corrosion. Cryogenic toughness down to -196°C. In sulphur-free atmospheres, non-scaling <1200°C and in sulphurous atmospheres the weld metal can be used for operating temperatures <500°C. Even at higher temperatures there is only limited carbon diffusion in the weld metal thus avoiding crack-prone carbides at the weld interface of dissimilar joints. The coefficient of thermal expansion is between austenitic and ferritic steels, therefore SUPRANEL 625 is also suited for joining ferritic to austenitic steels, dissimilar joints, at operating temperatures or postweld heat treatment >300°C.

SUPRANEL 625 LF is specially used for overlay due to its low iron content.

Classification		Approvals	Grade
EN ISO	14172: E Ni 6625	DNV	
AWS	A5.11: E NiCrMo-3	TÜV	●

CE

Chemical analysis (Typical values in %)

C	Mn	Si	Cr	Ni	Mo	Nb	Fe	Al
0.02	0.9	0.2	22	Rem	9	3.7	≤ 1.0	≤ 0.4

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation A5 (%)	Impact Energy ISO - V (J)	
				+20 °C	-196 °C
As Welded	≥ 420	≥ 760	≥ 30	≥ 60	≥ 50

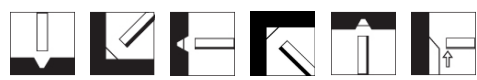
Materials

1.4539 (X2NiCrMoCu 25-20); X2CrNiMoCuN20-18-6; 1.4529 (X1NiCrMoCuN 25-20-6)

2.4856 (Alloy 625, NiCr22Mo9Nb); 2.4858 (Alloy 825, NiCr21Mo)

UNS N06625; UNS N08825

Storage
Keep dry and avoid condensation. Re-dry at 300-350 °C for 2 hours, 5 times max

Current condition and welding position
DC+

PA PB PC PD PE PF

Packaging data

Diam. (mm)	Length (mm)	Current (A)	Approx. weight (kg/1000)	DRYF	
				PC	Code
3.2	350	70-95	34.4	24	●
4.0	350	90-120	50.0	20	●