

MMA Electrodes Stainless and Heat resistant steels

DW 312 is a rutile coated MMA electrode for joining difficult-to-weld steels, dissimilar steels and for wear-resistant surfacing and buffer layers, the deposit hardness is ~220 HB. Applications include repair and maintenance welding on machines, power transmission equipment and tools. The microstructure of the higher strength weld metal consists of ferritic-austenitic Cr-Ni steel, with ~50% delta-ferrite, and is highly crack resistant, rust-proof and non-scaling <1100 °C. Very good weldability, weld metal transfer is in fine droplets with easy slag removal, producing a good weld bead shape.

Classification	
EN	1600: ~E 29 9 R 12
AWS	A5.4: ~E 312-16

Approvals	Grade
DB	●
CE	

Chemical analysis (Typical values in %)

C	Mn	Si	Cr	Ni	Ferrite
0.8	1	1.2	28	12	25-50

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation A5 (%)	Impact Energy ISO - V (J)		Hardness
				+20 °C		
As Welded	≥ 450	≥ 650	≥ 20	≥ 30		220 HB

Materials

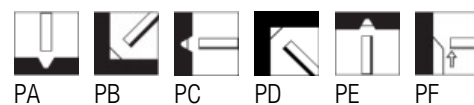
Welding of steels which are difficult to weld: alloy steels, armor-plating steels. This electrode can also be used to weld dissimilar materials: non-alloyed steels or low alloy steels with stainless steel. Electrode particularly suitable for use in repair work.

Storage

Keep dry and avoid condensation.
Re-drying not generally required
If necessary: 300-350 °C for 2 hours, 5 times max

Current condition and welding position

AC; DC+



Packaging data

Diam. (mm)	Length (mm)	Current (A)	Approx. weight (kg/1000)	CBOX		DRYF		SMPA	
				PC	Code	PC	Code	PC	Code
2.5	300	60-85	18.3	195	●	28	●	28	●
3.2	350	80-115	37.1	115	●	22	●	15	●
4.0	350	105-160	54.1	80	●	18	●		