

Coated Electrode for Stainless Steels

Classification

EN 1600 : E 29 9 R 12
 AWS A5.4 : E312-16
 DIN 8555 : E9-UM-200 CK
 Werkstoff-Nr : 1.4337

General Description

AS P-312 is a rutile coated electrode. It gives a filler metal of the Cr-Ni type. Due to its high tensile and impact resistance, it is used for the joining and build up welding of steels with a high tendency to cracking. It is especially developed for maintenance and repair welding.

Chemical Composition (w%), Typical, All Weld Metal

C	Si	Mn	Cr	Ni
0.10	0.90	0.80	29	9

Mechanical Properties, Typical, All Weld Metal

Yield Strength : 600 N/mm²
 Tensile Strength : 800 N/mm²
 Elongation (L=5d) : 25 %
 Impact (ISO-V) : 50 J (+20°C)
 Hardness : 200 HB (as welded)
 400 HB (after cold working)

Approvals

GOST, SEPRO, TSE

Applications and Materials to be Welded

Unalloyed steels, high carbon steels (1.4085 : G-X 70 Cr 29), high alloyed steels, tool steels, spring steels, high speed steels, cast pieces and air hardenable armour steel plates that have poor weldability can be welded with AS P-312.

Joining of unalloyed or low alloyed steels with stainless steels and build up welding of gears and shafts are among its application areas. Generally, there is no preheating requirement before welding. If preheating is necessary, preheating temperature might be less than that required for other electrodes.

AS P-312 should not be used for the welding of parts that are continuously operating at temperatures exceeding 450°C. Interpass temperature should be controlled in multipass applications.

EN	W. Nr.	EN	W. Nr.
X6 Cr 17	1.4016	X20 Cr 13	1.4021
X7 Cr 14	1.4001	G-X70 Cr 29	1.4085
X15 Cr 13	1.4024		

Welding Parameters / Packing and Diameter Informations / Welding Positions

Current Type and Polarity : AC min 50 V ; DC (+)

Diameter [mm]	Length [mm]	Current [A]	Electrode Weight [g/100 pcs]	Box Weight [kg] Quantity [pcs/box]	Export Box Box Weight [kg]
2.50	250	55 - 85	1540	1.5 / 95	1.5
3.25	300	80 - 120	3180	1.9 / 60	2.0
4.00	350	110 - 160	5450	2.2 / 40	2.5
5.00	350	150 - 180	9130	2.3 / 25	2.5



1G/PA



2F/PB



2G/PC



4G/PE



3G/PF