

Product Data Sheet

C-Mn and low-alloy steels

SUPER OPTIMAL 7016

- ★ Ultra smooth finely rippled weld beads.
- ★ Less than 4.0 ml diffusible hydrogen.
- ★ Excellent impact notch toughness in class.
- ★ Superior reliability for the critical welding of C-Mn microalloyed & low alloy structural steels.

Classification **AWS A5.1:** E 7016 - H4 **EN 499:** E 42 5 B 12 H5
EN ISO 2560-A: E 42 5 B 12 H5

Description and applications Basic coated, low hydrogen electrode for producing tough and crack-free welded joints. Good operating characteristics when positional welding. Excellent for joints access making electrodes suitable for root joint welding. Weld metal has good toughness properties down to -50°C. Suitable for offshore, petrochemicals and power engineering industries.

Base materials S(P)235-S(P)420; GP240-GP280; L245-L360

Typical weld metal Chemical Composition (%)

C	Si	Mn	P	S
0.06	0.40	1.30	0.025	0.020

All weld metal mechanical properties (typical)

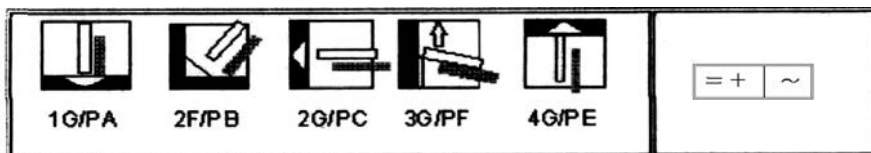
Heat Treatment	Tensile Strength R_m (N/mm ²)	Yield Strength R_p (N/mm ²)	Elongation A_5 (%)	Impact Energy ISO-V(J)- 30°C
As welded	550-620	≥420	30	100

Amperes (A)

2.50	3.15 / 3.20	4.00	5.00
50-80	90-130	130-170	180-220

Storage and Redrying : Keep dry and avoid condensation,
 HD≤5: Re-dry at 340-360°C for 1 hours, 3 times max.
 HD≤10: Re-dry at 300-350°C for 2 hours, 3 times max,

Welding Positions



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