B76 (DC+)

LOW ALLOY STEEL

DESCRIPTION

Basic low hydrogen electrode, highly resistant to cracks. Elaborated for welding of castings, fine grain steels and steels with increased yield strength, Rm up to 108 778 psi (750MPa). Welds of high security, very low hydrogen content < 5 ml / 100 g. Regular fusion, stable arc, low spatters, good removal of the slag and nice aspect of the weld seam.

CLASSIFICATION

AWS A5.5 : E10018-D2 EN 757 : ~ E 62 4 Mn1NiMo B 42 H5

BASE MATERIALS

High strength, low alloy steels and castings:

EN- Désignation	GS-30CrMoV64
DIN 17102	E500T, E550T, E620T, E690T, StE 500, 590,690
ASTM	A487-4Q A487, 4B, 4D, 6A
AISI	4130
	1.7220, 1.7225, 34CrMo4, 42CrMo4, 15CD4, 25CD4, 35CD4

PROCEDURE

Redrying 2 h à 662°F (350 °C).
Eventual preheating depends on the thickness and nature of the steel 100°C (212°F).
Interpass temperature: < 200°C (392°F).
Thermal stress relieving heat treatment is advised in most cases at 600°C (1112°F) / 2h.

MECHANICAL PROPERTIES, After Post Weld Heat Treatment 1148°F (620°C) / 1h

Tensile strength: > 108 778 psi (> 750 MPa)
Yield strength: > 94 274 psi (> 650 MPa)
Elongation: > 25 %
Impact (Charpy V): 100 J at +20ºC (68°F), 45 J at -40ºC (-40°F)

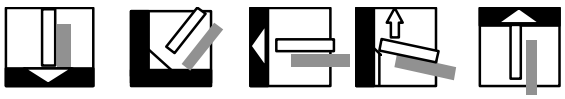
TYPICAL WELD METAL COMPOSITION (%)

C	Mn	Si	Ni	Mo	P	S
0.1	1.8	0.4	0.8	0.35	< 0.02	< 0.02

WELDING PARAMETERS

Diameter:	4.0 mm (5/32")	3.2 mm (1/8")	2.5 mm (3/32")
Amperage:	150 A	115 A	80 A

WELDING POSITIONS



1G/PA 2F/PB 2G/PC 3G/PF 4G/PE

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