



B84 (DC+)

LOW ALLOY STEEL

DESCRIPTION

Low hydrogen basic coated electrode alloyed with Nickel (above 3%) for welding fine grain steels used at low temperature -76 to -112°F (-60 to -80°C).

CLASSIFICATION

AWS A5.5 : E8018-C2 EN 499 : E 46 6 3Ni B 4 2 H5 ISO 2560-A : E 46 6 3Ni B 4 2 H5

TYPICAL APPLICATIONS

Cryogenic and petrochemical industries. Storage and distribution of liquid gas or products volatile.

BASE MATERIALS

Plates and tubes of fine grain steels, cold tough:

ASTM	A203G D&E – A352GrLC3 – A334Gr3 – A350Gr LF3
NF A 36-208	3.5 Ni 285 et 355 (12N14)
DIN	10Ni14 – 14Ni6 – 16Ni14
NF A 35-207	A510FP1 – A550FP2

PROCEDURE

Redrying at 662°F (350°C) during 2 hours, if necessary. An eventual preheating depends on the thickness of the parent metal. A stress relieving heat treatment is recommended in most of cases 1148°F (620°C) /1h.

MECHANICAL PROPERTIES*

*After thermal stress relieving at 620°C/1h

Tensile strength: > 79 770 psi (> 550 MPa)
 Yield strength: > 66 717 psi (> 460 MPa)
 Elongation: > 19 %
 Impact (Charpy V): > 80 J at -99.4°F (-73°C) and > 30 J at -148°F (-100°C)

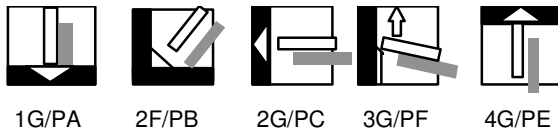
TYPICAL WELD METAL COMPOSITION (%)

C	Mn	Si	Ni	P	S
<0.10	0.9	0.3	3.5	< 0.025	< 0.025

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



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