

Innershield® NR®-450-H

Self-shielded cored wire

Classification

AWS A5.29-98 : E71T8-Ni2 (also meets: E81T8-Ni2)

General description

Self shielding: easiest equipment
Higher strength level, yield strength up to 450 N/mm
Excellent impact toughness at -40°C
CTOD tested, offshore constructions

Welding positions



Current type

DC -

Approvals

ABS GL LR
3SA,3YSAH10 3YSH10 3S,3YSH10

Chemical composition (w%), typical, all weld metal

C	Mn	Si	P	S	Ni	Al
0.07	0.26	0.06	0.004	0.002	2.44	0.88

Mechanical properties, all weld metal

	Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation %	Impact ISO-V(J)	
					-29°C	-40°C
Required:	AWS A5.29-98	min. 400	480-620	20	27	
Typical values		500	570	28	88	84

Packaging and available sizes

Unit type	Net weight/unit (kg)	Diameter (mm)
Coils 14C	6.35	X

Innershield® NR®-450-H: rev. EN 15

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Suggestions for use

Off-shore oil equipment, piping, storage tanks
General plate fabrication including bridge construction on ships and barges
Circumferential groove welds for heavy wall, large diameter tubular construction

Materials to be welded

Steel	Code	Type
General structural steel	EN 10025	S185, S235, S275, S355
Ship plates	ASTM A131	Grade A, B, D, AH32 t/m EH36
Cast steel	EN 10213-2	GP240R
Pipe material	EN 10208-1	L210, L240, L290, L360, L415, L445
	EN 10208-2	L240, L290, L360
	API 5LX	X42, X46, X52, X60
	EN 10216-1/ EN 10217-1	P235T1, P235T2, P275T1 P275T2, P355N
	Boiler & pressure vessel steel	EN 10028-2
Fine grained steel	EN 10113-2	S275, S355, S420
	EN 10113-3	S275, S355, S420

Calculation data at normal setting

Diameter (mm)	Electrical Stick-out (mm)	Wire feed speed inch/min	cm/min	Current (approx. A)	Arc Voltage (V)	Deposition Rate (kg/h)	kg Wire/ kg Weldmetal
2.0	19	60	150	140	16.5	1.18	1.44
		90	230	200	19.5	1.90	1.51
		110	280	225	20.5	2.35	1.33