

# Innershield® NR®-550-H

## Self-shielded cored wire

### Classification

AWS A5.29-98 : E81T8-Ni2 H8

### General description

**Self shielding: easiest equipment**  
**Higher strength level, yield strength up to 450 N/mm<sup>2</sup>**  
**Excellent impact toughness at -40°C**  
**CTOD tested, offshore constructions**

### Welding positions



### Current type

DC -

### Approvals

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

C	Mn	Si	P	S	Ni	Al
0.05	1.14	0.07	0.010	0.003	2.35	0.7

### Mechanical properties, all weld metal

	Condition	Yield strength (N/mm <sup>2</sup> )	Tensile strength (N/mm <sup>2</sup> )	Elongation %	Impact ISO-V(J)	
					-18°C	-29°C
Required:	AWS A5.29-98	min. 400	480-620	20		27
Typical values		490	585	25	113	100

### Packaging and available sizes

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

Innershield® NR®-550-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	P235GH, P265GH, P295GH, P355GH
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

## Welding parameters, optimum fill passes