

Innershield® NR®-400

Self-shielded cored wire

Classification

AWS A5.29-98 : E71T8-K6

General description

Self shielding: easiest equipment arrangement

Higher strength level, overmatching StE 355

Excellent impact toughness at -40°C

CTOD tested, offshore constructions

All positions, all passes

Welding positions



Current type

DC -

Approvals

BV	DB	FORCE	LR	TÜV
SA3YMH	+	+	3S,3YSH15	+

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

C	Mn	Si	P	S	Ni	Cr	Al
0.06	0.74	0.17	0.004	0.002	0.75	0.13	0.74

Mechanical properties, all weld metal

	Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation %	Impact ISO-V(J) -60°C
Required:	AWS A5.29-98	min. 400	480-620	20	27
Typical values	AW	435	525	26	100

Packaging and available sizes

Unit type	Net weight/unit (kg)	Diameter (mm)
Coils 14C	6.35	X
Coils 50C	22.68	X

Innershield® NR®-400: 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 to DH36.
Cast steel	EN 10213-2	GP240R
Pipe material	EN 10208-1	L210, L240, L290, L360
	EN 10208-2	L240, L290, L360
	API 5LX	X42, X46, X52
	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
	EN 10113-3	S275, S355

Calculation data at normal setting

Diameter (mm)	Electrical Stick-out (mm)	Wire feed speed		Current (approx. A)	Arc Voltage (V)	Deposition Rate (kg/h)	kg Wire/ kg Weldmetal
		inch/min	cm/min				
2.0	19	60	150	150	16.5	1.20	1.37
		90	230	225	19.5	1.85	1.37
		110	280	265	20.5	2.35	1.37

Welding parameters, optimum fill passes

Diameter (mm)	Wire feed speed/ Current/ Voltage	Welding position			
		PA/1G PB/2F	PC/2G	PF/3G(up) PF/5G(up)	PE/4G
2.0	(cm/min.)	280	230	200	200
	(A)	265	225	190	190
	(V)	20	19	18	18

FCAW