

Innershield® NR®-400

Self-shielded cored wire

Classification

AWS A5.29/A5.29M : 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



ISO/ASME PA/1G PB/2F PC/2G PF/3Gup PE/4G PF/5Gup

Current type

DC -

Approvals

BV	LR	TÜV
SA3YMHH	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, typical, all weld metal

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

Packaging and available sizes

Unit type	Diameter (mm)
	2.0
6.35 kg coil 14C	X
22.68 kg coil 50C	X

Innershield® NR®-400: rev. EN 23

Liability: All information in this data sheet is based on the best available knowledge, is subject to change without notice and can only be considered as suitable for general guidance **Fumes:** Consult information on Welding Safety Sheet, available upon request

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Materials to be welded

Steel grades/Standard Type

General structural steel

EN 10025 part 2 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/ P235T1, P235T2, P275T1

EN 10217-1 P275T2, P355N

Boiler & pressure vessel steel

EN 10028-2 P235GH, P265GH, P295GH, P355GH

Fine grained steel

EN 10025 part 3 S275, S355

EN 10025 part 4 S275, S355

Calculation data at normal setting

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

Welding parameters, optimum fill passes

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

Remarks/ Application advice

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