

Innershield® NR® 400

CLASSIFICATION

AWS A5.29	E71T8-K6	A-Nr	10
EN ISO 17632-B	T 49 6 T8-1 N A-N1-H15	F-Nr	6
		9606 FM	1

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/3Gu



PE/4G



PH/5Gu

CURRENT TYPE

DC -

APPROVALS

BV	LR	TÜV
SA3YMHH	3S,3YSH15	+

CHEMICAL COMPOSITION (W%), TYPICAL, ALL WELD METAL

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

MECHANICAL PROPERTIES, TYPICAL, 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		min. 400	480-620	20	27
Typical values	AW	435	525	26	100

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	2.0
6.35 kg coil	X

Innershield® NR® 400: rev. C-EN25-10/08/17

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EXAMPLES OF MATERIALS TO BE WELDED

Steel grades/Standard	Type
General structural steels	
EN 10025 part 2	S185, S235, S275, S355
Ship plates	
ASTM A131	Grade A, B, D, AH32 to DH36
Cast steels	
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 steels	
EN 10028-2	P235GH, P265GH, P295GH, P355GH
Fine grained steels	
EN 10025 part 3	S275, S355
EN 10025 part 4	S275, S355

CALCULATION DATA

Diameter (mm)	Electrical stick-out (mm)	Wire Feed Speed (cm/min)	Current (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 positions			
		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