

# Innershield® NR®-207

## Self-shielded cored wire

### Classification

AWS A5.29/A5.29M : E71T8-K6

### General description

**Self shielded: easiest equipment arrangement**  
**Vertical down filling semi-automatic pipe welding**  
**High quality construction welding in all positions**  
**Good impact and CTOD toughness**

### Welding positions



ISO/ASME PA/1G PB/2F PC/2G PG/3Gdown PE/4G PG/5Gdown

### Current type

DC -

### Approvals

BV	DNV	GL	TÜV
SA3YMH	IIYMSH15	3YH15S	+

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

C	Mn	Si	P	S	Ni	Al
0.07	0.9	0.20	0.005	0.003	0.85	1.0

### Mechanical properties, typical, all weld metal

	Condition	Yield strength (N/mm <sup>2</sup> )	Tensile strength (N/mm <sup>2</sup> )	Elongation %	Impact ISO-V(J) -29°C
Required:	AWS A5.29	min. 400	480-620	20	27
Typical values	AW	420	535	25	110

### Packaging and available sizes

Unit type	Diameter (mm)	
	1.7	2.0
6.35 kg coil 14C	X	X
22.68 kg coil 50C		X

Innershield® NR®-207: rev. EN 21

**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

### Pipe material

EN 10208-1      L210, L240, L290, L360

EN 10208-2      L240, L290, L360, L415

API 5LX      X42, X46, X52, X60

EN 10216-1/      P235T1, P235T2, P275T1

EN 10217-1      P275T2, P355N

### Fine grained steel

EN 10025 part 3      S275, S355

EN 10025 part 4      S275, S355

## Calculation data at normal setting

Diameter (mm)	Electrical	Wire feed speed cm/min	Current (approx. A)	Arc Voltage (V)	Deposition Rate (kg/h)	kg Wire/ kg Weldmetal
	Stick-out (mm)					
2.0	19	180	175	17.5	1.4	1.27
		230	220	18.5	1.7	1.27
		250	260	19.5	2.5	1.27

## Welding parameters, optimum fill passes

Diameter (mm)	Welding position	Welding position			
		PA/1G PB/2F	PC/2G	PG/3G down PG/5G down	PE/4G
2.0	Wire feed speed (cm/min.)	280	230	230	190
	Current (A)	240	220	220	185
	Voltage (V)	21	19	19	19

## Remarks/ Application advice

High productivity welding

Where arctic mechanical properties are required in general construction welding

Semi-automatic pipe welding