

# Innershield NR<sup>®</sup>-204-H

## Self-shielded cored wire

### Classification

AWS A5.20-95 : E71T-GS

### General description

Self shielded: easiest equipment arrangement

NR 204 recommended for vertical down root pass pipe welding

NR 207 recommended for filling in vertical down position pipe welding

High quality construction welding in all positions

Good impact and CTOD toughness

Low hydrogen weld metal H<sub>DM</sub> 5-7ml/100g)

### Welding positions



ISO/ASME PA/1G PC/2G PG/3G down PG/5G down

### Current type

DC -

### Approvals

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

C	Mn	Si	P	S	Al
0.15	0.75	0.20	0.008	0.013	0.65

### 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)
Required:	AWS A5.20-95	not required	min. 480	not required	not required
Typical values	AW		510*	24	

\* Flat tensile test specimen

### Packaging and available sizes

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

Innershield NR<sup>®</sup>-204-H: rev. EN 15

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## Suggestions for use

Where low hydrogen weld metal is required

High productivity welding

Where arctic mechanical properties are required in general construction welding

Semi-automatic pipe welding

Drag angle 30°, electrical stick out 15-20mm

## Materials to be welded

Steel	Code	Type
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

## 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
1.7	19	80	200	170	13.5	1.8	
		95	240	185	14.5	2.1	
		110	280	210	15.6	2.4	

## Welding parameters, optimum fill passes

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