

Innershield® NR®-211-MPE

Self-shielded cored wire

Classification

AWS A5.20/A5.20M : E71T-11

General description

Self shielding: easiest equipment arrangement

General purpose welding

Easy handling and welding versatility

Recommended for sheets from 2.5 to 12mm

With electrode diameter 0.9mm: excellent for sheets from 1.2mm

Welding positions



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

Current type

DC -

Approvals

BV	LR
+	AWS

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

C	Mn	Si	P	S	Al
0.21	0.65	0.25	0.010	0.003	1.3

Mechanical properties, typical, all weld metal

	Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation %	Impact ISO-(VJ)
Required:	AWS A5.20	min. 400	480	20	not required
Typical values	AW	450	610	22	

Packaging and available sizes

Unit type	Diameter (mm)			
	0.9	1.2	1.7	2.0
6.35 kg coil 14C	X	X		
6.35 kg coil 14C			X	X
11,34 kg coil 22RR	X	X		
22.68 kg coil 50C			X	X

Remarks/ Application advice

Fabricating and repair of machinery parts, truck bodies, saddles, tanks, hoppers, etc.

Racks, scaffolding, light angle structurals, joints, small roundabouts, etc.

Short assembly welds on brackets, dips, etc.

Galvanized steel

Innershield® NR®-211-MPE: rev. EN

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

Innershield® NR®-211-MPE

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
0.9	10	125	30	14	0.3	1.22
		230	90	16	0.6	1.22
		280	120	16.5	0.8	1.22
1.1	14	180	120	15	0.5	1.22
		280	160	17	1.0	1.22
		330	170	18	1.2	1.22
1.7	19	100	120	15	0.8	1.22
		190	190	18	1.5	1.22
		440	320	23	3.5	1.22
2.0	19	130	180	16	1.4	1.09
		190	250	18	2.2	1.09
		380	350	22	4.3	1.09
2.4	19	130	235	16	2.0	1.10
		140	250	18	2.3	1.10
		250	370	20	4.2	1.10

Welding parameters, optimum fill passes

Diameter (mm)	Welding position	Welding position				
		PA/1G PB/2F	PC/2G	PF/3G up	PG/3G down PG/5G down	PE/4G
0.9	Wire feed speed (cm/min.)	180	180	150	230	230
	Current (A)	65	65	50	85	85
	Voltage (V)	15	15	14.5	16	16
1.1	Wire feed speed (cm/min.)	230	230	200	280	280
	Current (A)	140	140	130	160	160
	Voltage (V)	16	16	16	17	17
1.7	Wire feed speed (cm/min.)	440	250	190	300	300
	Current (A)	320	230	190	280	280
	Voltage (V)	23	19.5	18	21	21
2.0	Wire feed speed (cm/min.)	330	190	230	230	190
	Current (A)	320	250	320	250	250
	Voltage (V)	21	18	19.5	18	18
2.4	Wire feed speed (cm/min.)	230	180	230	230	140
	Current (A)	350	275	350	250	250
	Voltage (V)	19.5	19	19.5	18	18

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