

Outershield® MC555CT-H

CLASSIFICATION

AWS A5.28/A5.28M : E70C-GM H4
 EN ISO 17632-B : T554T15-0MA-NCC1-UH5

GENERAL DESCRIPTION

Gas shielded 0,5%Ni-0,5%Cu-0,5%Cr alloyed metal cored wire for welding weather resistant (CorTen) steel grade
 Excellent arc characteristics give outstanding operator appeal
 Virtually no spatter, high travel speed and excellent wire feeding
 Excellent mechanical properties (CVN >47J at -40°C)
 Very low hydrogen (H_{DM} <5 ml/100g)
 Superior product consistency with optimal alloy control

APPROVALS

Shielding gas TUV
 M21 +

WELDING POSITIONS



CURRENT TYPE

DC +
 M21 : Mixed gas Ar+ (>15-25%) CO₂
 Amount : 15-25 l/min

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

Shielding gas	C	Mn	Si	P	S	Cr	Ni	Cu	H _{DM} ml/100 g
M21	0.03	1.3	0.4	0.015	0.015	0.55	0.55	0.55	<5

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition	Yield strength	Tensile strength	Elongation	Impact ISO-V(J)		
			(N/mm ²)	(N/mm ²)	(%)	-30°C	-40°C	-50°C
Required: AWS A5.28 EN ISO 17632-B			min. 470 min. 460	min. 550 550-740	min. 19 min. 17	min. 27	47	
Typical values	M21	AW	650	680	22	80	70	60

PACKAGING AND AVAILABLE SIZES

Diameter (mm)	1.2
Unit : 15 kg spool B300	X

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MATERIALS TO BE WELDED

Steel grades/Standard	Type
Weather resisting steels	
EN 10155 / 100025-5	S235 J0W, S235 J2W, S355 J0W, S 355 J0WP, S 355 J2 W, S 355 J2WP, S 355 J2G1W, S 355 J2G2W, S 355 K2G1W, S 355 K2G2W
ASTM A242	Type 1
ASTM A588	Grade A, B, C, K
ASTM A709	Grade HPS 50 & WHPS 70W
ISO 5952	HSA 355W1 & W2
Without classification:	Specified yield up to 550 MPa Specified CVN down to -50°C

CALCULATION DATA

Diameter (mm)	Arc mode	Electrical stick-out (mm)	Wire Feed Speed (cm/min)	Current (A)	Arc Voltage (V)	Deposition rate (kg/h)	kg wire/kg weldmetal
1.2	Short arc	15	230	100	15	1.1	1.10
			320	120	16	1.4	1.10
			400	150	17	1.9	1.10
	Spray Arc	20	635	180	28-30	2.7	1.10
			940	275	31-34	4.8	1.10
			1420	340	35-38	6.8	1.10

WELDING PARAMETERS, OPTIMUM FILL PASSES IN SHIELDING GAS Ar + (>15-25)% CO₂

Diameter (mm)	Welding positions				
	PA/1G	PB/2F	PC/2G	PF/3Gup	PE/4G
1.2	230-380A	230-380A	230-300A	130-170A	140-175A
	26-36V	26-36V	26-30V	15-17V	16-17V