

GENERAL INFORMATION	
Inspection Certificate	EN 10204 Type 3.2
Purchaser	MX3D
Manufacturer	MX3D
Type of product	DED-Arc printed plates
AM equipment	M1 Additive Manufacturing System -Robot: IRB 2600ID-8/2.0 Type A -Controller: ABB IRC5 with RobotWare 6.11 -Welding machine: Fronius TPS 500i -Positioner: IRBP A750 D1450 Type A
Material Requirements	SA516-70
Supp requirments	x

PRODUCT DECIPTION								
Type of part	Thickness (mm)	Height (mm)	Length (mm)	Delivery condition	Wire used	Wire heat no	DPS	Tested part ID
Straight wall	13	220	370	As printed	E70C 6M H4	857512	01	01 SWE70

FURTHER INFORMATION
Printed part has to meet the mechanical requirments ASME IIA.2015 SA516-70. DPQR 01

DELIVERY CONDITION
As printed, first 5 layers (buffer zone) are not included either in the final part nor the tested part.


TENSILE TEST (AS PER ASTM E8)						
Test no:	Orientation	Temperature (C)	R _{eH} Yield Strength (MPa)	R _m (MPa)	A%	Z%
1	Z (vertical)	RT	417	580	34.0	73
2	Z (vertical)	RT	406	564	28.7	72
3	Z (vertical)	RT	411	564	32.5	73

IMPACT TEST (AS PER ASTM A370)							
Test no:	Orientation	Specimen size	Temperature (C)	Values (KV [J])			Mean value (J)
1	Z (vertical)	10x10	-46	63	40	34	46
2	Horizontal	10x10	-46	21	25	44	30
3	45deg	10x10	-46	41	30	33	35

CHEMICAL COMPOSITION (WT% GDOES)												
C	Si	Mn	P	S	Cr	Cu	Ni	Mo	Ti	V	Al	Nb
0.11	0.91	1.57	0.008	0.005	0.03	0.09	0.02	<0.01	0.018	<0.001	<0.001	<0.001


NON DESTRUCTIVE TESTING			
Test Method	Extend of testing	Acceptance criteria	Results
RT (As per ASTM E1742)	100%	AWS D20.1 Class B	Meets the required specifications

Date of issue 15/11/2021
Signatory



Inspection Authority Signatory

Witnessed Monitored Reviewed

 Lloyd's Register
 Milena Matijasevic Clarke
 15 November 2021
 Antwerp Office
 Lloyd's Register EMEA

Reference

PRJ11100344406-1/1