

## DECLARATION OF PERFORMANCE

n. 001-23/A

1	Unique identification code of the product-type						
<b>MM PULTRUDED STRUCTURAL PROFILES</b>							
<b>Structural profiles made of fibre-reinforced polymers (Fibreglass Composites/FRP)</b>							
group	A	A	multiaxial				
code	section	dimensions	ID - identification code	code	section	dimensions	ID - identification code
I6	IPE-H-I	202x101x10	53I020010010 ISO CE-A	L11	Angle	100x50x10	53A110005010 ISO CE-A
I7	IPE-H-I	200x200x10-15	53H020020010_15 ISO CE-A	L12	Angle	100x60x10	53A110006010 ISO CE-A
I8	IPE-H-I	300x200x15	53I030020015-ISO-CE-A	L13	Angle	170x70x10	53A117007010-ISO-CE-A
I9	IPE-H-I	300x280x15	53I030028015-ISO-CE-A	L14	Angle	125x70x12	53A112507012-ISO-CE-A
DI	DOUBLE I	240x220x13	53DI24022013-ISO-CE-A	L16	Angle	150x100x15	53A115010015 ISO CE-A
C8	C-U	200x50x10	53C020005010 ISO CE-A	T3	T	100x100x10	53T110010010 ISO CE-A
C9	C-U	200x60x10	53C020006010 ISO CE-A	T4	T	100x200x10-15	53T110020010_15 ISO CE-A
C11	C-U	340x70x10	53C034007010 ISO CE-A	T5	T	150x200x15	53T115020015-ISO-CE-A
C13	C-U	250x70x12	53C025007012 ISO CE-A	T6	T	150x280x15	53T115028015-ISO-CE-A
C14	C-U	300x100x15	53C030010015 ISO CE-A				

2	Intended use of the product as foreseen by the manufacturer
MM Pultruded Structural Profiles are intended for use as structural elements (beams, columns) where the load-bearing characteristic is the main design criterion and where the product is part of a load-bearing system. The performance of structural profiles is given on the basis of short-term loads, at room temperature and without environmental influences.	

3	Manufacturer
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5	System of assessment and verification of constancy of performance (AVCP)
<b>1+</b>	

6b	
European Assessment Document	<b>EAD 260001-00-0303 april 2016</b>
European Technical Assessment	<b>ETA 21/0849 date 09/11/2021</b>
Technical Assessment Body	ITC - CNR Via Lombardia, 49 20098 San Giuliano Milanese (MI) - Italy
Notified body	ITC - CNR CPR NB n. 0970
<b>Certificate of constancy of performance</b> <b>0970-CPR-0964/CE/1223</b>	

7	Declared performance
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<b>MECHANICAL RESISTANCE AND STABILITY (BWR 1)</b>				
	Essential characteristic	Performance		
		Value		Norm
		average	characteristic	
1	Full-section effective modulus of elasticity	33,67 GPa		EN 13706-2 annex D
2	Flexural strength - Axial	493,80 MPa	472,20 MPa	EN ISO 14125
	Flexural strength - Transverse	216,60 MPa	184,80 MPa	
3	Tensile strength - Axial	470,00 MPa	451,00 MPa	EN ISO 527-4
	Tensile strength - Transverse	90,10 MPa	84,60 MPa	
4	Tensile modulus of elasticity - Axial	33,10 GPa		EN ISO 527-4
	Tensile modulus of elasticity - Transverse	11,75 GPa		
5	Compressive strength - Axial	393,30 MPa	374,40 MPa	EN ISO 14126
	Compressive strength - Transverse	126,90 MPa	114,80 MPa	

6	Compressive modulus of elasticity – Axial	30,02 GPa		EN ISO 14126
	Compressive modulus of elasticity – Transverse	11,07 GPa		
7	Shear strength (perpendicular to plane)	No performance assessed		ASTM D7078
8	Shear modulus (perpendicular to plane)	No performance assessed		ASTM D7078
9	Inter-laminar (in-plane) shear strength – Axial	25,12 MPa	21,25 MPa	EN ISO 14130
10	Inter-laminar (in-plane) shear modulus	4,71 GPa		EN ISO 15310
11	Pin-bearing strength – Axial	225,14 MPa	200,24 MPa	EN 13706-2 annex E
	Pin-bearing strength – transverse	154,98 MPa	121,74 MPa	
12	Poisson's ratio – Axial	0,30		EN ISO 527-4
	Poisson's ratio – Transverse	0,10		
13	Thermal expansion – Axial	10,8 x 10 <sup>-6</sup>		EN ISO 11359-2
	Thermal expansion – Transverse	27,7 x 10 <sup>-6</sup>		
14	Fibre content by weight	68,47%		EN ISO 1172
15	Degree of cure - Differential scanning calorimetry (DSC)	100%		EN ISO 11357-1/3
16	Creep	< 6%		EAD 260001-00-0303
17	Reduction factors for stability and serviceability related to aging/environmental influence	The performance cannot be assessed according to EAD 260001-00-0303 §2.2.1.		
18	Reduction factors for effect of temperature	The performance cannot be assessed according to EAD260001-00-0303 §2.2.1.		
19	Reduction factors for long term loads	The performance cannot be assessed according to EAD 260001-00-0303 §2.2.1.		
20	Reduction factors for repeated loads	The performance cannot be assessed according to EAD 260001-00-0303 §2.2.1.		


#### SAFETY IN CASE OF FIRE (BWR 2)

	Essential characteristic	Performance	
		Value	Norm
21	Reaction to fire	Class E	EN 13501-2
22	Resistance to fire	No performance assessed	EN 13501-1

#### SAFETY IN USE (BWR 4)

	Essential characteristic	Performance	
		Value	Norm
23	Impact resistance	Not applicable. <i>The essential characteristic refers to decks.</i>	EN 477
24	Definition of geometry and tolerances	Compliant	EN 13706-2

The performance of the product as above identified is in conformity with the declared performance.  
This declaration of performance is issued according to REGULATION (EU) No 305/2011, under the sole responsibility of the manufacturer.

Signed for and on behalf of the manufacturer by	
Emanuel Morandini	
Legal representative	