

TECHNICAL DATA SHEET

APL / TDS / 001 / Rev. 03

Date 15.02.2020

MC BOND

CLASS A2 - (s1,d0)

A2

PHYSICAL PROPERTIES

	TEST STANDARD	REQUIREMENT	RESULT	
			4MM	6MM
Panel Thickness	...	(±) 0.2 mm	4.155	6.085
Weight of the Panel	...	≥ 7.8kg/m ² - 4mm ≥ 10.85 kg/m ² - 6mm	8.3kg/m ²	11.1kg/m ²
Standard Width	...	(±) 2 mm	1000, 1250, 1500	
Length	...	(±) 2 mm	up to 6000 mm	
Skin Thickness	...	(±) 0.03 mm	0.5 mm	
Alloy / Temper	ASTM B209	3105 - H16	3105 - H16	

FIRE PERFORMANCE

	TEST STANDARD	REQUIREMENT	RESULT	
			4MM	6MM
Reaction to Fire	EN 13501-1	Class A2, s1, d0	TBW 0300135.3	
Surface Burning Characteristics	ASTM E84	(FSI) 25-0 (SDI) 450-0	FSI 15, SDI 15 Class A	FSI 15, SDI 30 Class A
Self Ignition Temperature (ACP)	ASTM D 1929	Not less than 343°C	SIT (842°F) 450°C, FIT (842°F) 450°C	SIT (842°F) 450°C, FIT (842°F) 450°C
Self Ignition Temperature (CORE)			SIT (950°F) 510°C, FIT (950°F) 510°C	SIT (950°F) 510°C, FIT (950°F) 510°C
Non-Loadbearing Ventilated Façade System	BS 8414-1	As per standard	TBW0300140.3	
Exterior Non-Load Bearing Wall Cladding Assemblies	NFPA 285	As per standard	TBW0300204.1 TBW0300148.1 TBW0300560	TBW0300224.1

COIL SPECIFICATION

	TEST STANDARD	REQUIREMENT	RESULT	
			4MM	6MM
Tensile Strength	ASTM E8	172 - 221 N/mm ²	205 - 218 N/mm ²	
Yield Strength	ASTM E8	Min. 145 N/mm ²	206 N/mm ²	
Elongation	ASTM E8	Min. 1.0%	3.40%	

MECHANICAL PROPERTIES

	TEST STANDARD	REQUIREMENT	RESULT	
			4MM	6MM
Peel off strength @ 180°	ASTM D 1781	≥ 10 kg/ 25mm	20.6 kg/25mm	20.6 kg/25mm
Shear Strength	ASTM C 273	≥ 3.2MPa	3.75 Mpa	3.99 Mpa
Tensile strength	ASTM D638	Measure Value	42.3 Mpa	
Yield Strength	ASTM D638	Measure Value	40.4 Mpa	
Elongation	ASTM D638	Measure Value	8.36%	

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MECHANICAL PROPERTIES

	TEST STANDARD	REQUIREMENT	RESULT	
			4MM	6MM
Modulus of Elasticity	ASTM C393	Measure Value	22,800 Mpa	
Flexural Strength	ASTM D790-17	Measure Value	106.1 Mpa	

THERMAL PROPERTIES

	TEST STANDARD	REQUIREMENT	RESULT	
			4MM	6MM
Deflection Temperature	ASTM D 648	≥ 100°C	183.9°C	205.5°C
Thermal Expansion	EN 1999 1-1	Measure Value	95.4 µm/m°C	
Thermal Conductivity	ASTM C 518	Measure Value	0.11 W/mK	0.10 W/mK

ACOUSTICAL PROPERTIES

	TEST STANDARD	REQUIREMENT	RESULT	
			4MM	6MM
Sound Transmission Class	ASTM E413	...	STC 19	

COATING PROPERTIES AND PERFORMANCE

	TEST STANDARD	REQUIREMENT	RESULT	
			4MM	6MM
Type / Finish		PVDF / FEVE / HDPE	PVDF / FEVE / HDPE	
Coating Thickness	ASTM D 1400	≥ 25µm	≥ 25µm	
Weathering Resistance	ASTM C 481	A. Shear Strength B. Film Adhesion C. Impact Resistance	A. 3.75 Mpa (after exposure) B.1. Dry Adhesion - No removal of film B.2. Wet Adhesion - No removal of film B.3. Boiling Water - No removal of film C. Impact Resistance - No removal of film	
Corrosion Resistance	AAMA 2605	A. Humidity Resistance B. Salt Spray Resistance	A. No formation of blisters B.1 Scribed - rating of 9 B.2. Unscribed - rating of 10	
Abrasion Resistance	ASTM D 968	Min 40 L/mil	43.9 L/mil	
Pencil Hardness	ASTM D 3363	Min HB	> 4H	
Film Adhesion	ASTM D3359	No removal of film	No removal of film nor blistering	
Impact Resistance Test 50 kg-cm	ASTM D 2794	No removal of film	No removal of film	