

## TECHNICAL DATA SHEET

APL / TDS / 005 / Rev. 00  
Date: 01-10-2020

### ALUCOPANEL A1: EUROCLASS A1 in accordance with BS EN 13501-1:2018

#### PHYSICAL PROPERTIES

	TEST STANDARD	REQUIREMENT	RESULT
PANEL THICKNESS	CALIBRATED CALIPER	(±) 0.2 mm	4.1 mm
WEIGHT OF PANEL	CALIBRATED WEIGHING DEVICE	± 0.5 FROM 7.8 Kg/m <sup>2</sup>	8.0 Kg/m <sup>2</sup>
STANDARD WIDTH	...	(±) 2 mm	1000, 1250, 1500
LENGTH	...	(±) 2 mm	UP TO 6000 mm
SKIN THICKNESS (Top/Bottom)	CALIPER	0.5 (±) 0.02 mm	0.52 mm
ALLOY / TEMPER	ASTM B209	3105 - H16	3105 - H16

#### FIRE PERFORMANCE

	TEST STANDARD	REQUIREMENT	RESULT
REACTION TO FIRE CLASSIFICATION	EN13501 - 1	CLASS A1	TBW 0300647
SELF IGNITION TEMPERATURE (CORE)	ASTM D1929	NOT LESS THAN 343°C	SIT > 750°C FIT > 750°C
EXTERIOR WALL CLADDING SYSTEM	NFPA 285	PASS AS PER STANDARD	TBW 0300672

#### COIL SPECIFICATIONS

	TEST STANDARD	REQUIREMENT	RESULT
TENSILE STRENGTH	ASTM E8	172 - 221 N/m <sup>2</sup>	188 N/m <sup>2</sup>
YIELD STRENGTH	ASTM E8	MIN. 145 N/m <sup>2</sup>	185 N/m <sup>2</sup>
ELONGATION	ASTM E8	MIN. 1.0%	5.00%

#### MECHANICAL PROPERTIES

	TEST STANDARD	REQUIREMENT	RESULT
PEEL OFF STRENGTH	ASTM D903	≥ 10 Kg/25 mm	17.35 Kg/25 mm
SHEAR STRENGTH	ASTM C273	≥ 3.2 MPa	3.35 MPa
PANEL TENSILE STRENGTH	ASTM E08	MEASURE VALUE	44.48 MPa
BEND TEST	ASTM D522	2T (NO CRACKS)	2T (NO CRACKS)
PUNCH SHEAR TEST	ASTM D732	≥ 20 MPa	23.77 MPa

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#### THERMAL PROPERTIES

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TEMPERATURE FOR THERMAL DEFORMATIONS	ASTM D648	≥ 100°C	4.1 mm
LINEAR THERMAL EXPANSION COEFFICIENT	ASTM D696	≥ 2.4 mm/°C	8.0 Kg/m <sup>2</sup>
THERMAL CONDUCTIVITY	ASTM C518	MEASURE VALVE	0.129 W/Mk

#### COAT PROPERTIES AND PERFORMANCE

	TEST STANDARD	REQUIREMENT	RESULT
TYPE / FINISH	...	PVDF / FEVE / HDPE	PVDF / FEVE / HDPE
COATING THICKNESS	ASTM D1400	≥ 25 µm	30 µm
WEATHERING RESISTANCE	ASTM C481	A. SHEAR STRENGTH	A. 3.20 MPa (AFTER EXPOSURE)
	ASTM C481	B. FILM ADHESION	B1. DRY ADHESION - NO REMOVAL OF FILM
	ASTM C481		B2. WET ADHESION - NO REMOVAL OF FILM
	ASTM C481		B3. BOILING WATER - NO REMOVAL OF FILM
	ASTM C481	C. IMPACT RESISTANCE	C. NO REMOVAL OF FILM
CORROSION RESISTANCE	AAMA 2605	A. HUMIDITY RESISTANCE	A. NO FORMATION OF BLISTERS
	AAMA 2605	B. SALT SPRAY RESISTANCE	B1. SCRIBED - RATING OF 9
	AAMA 2605		B2. UNSCRIBED - RATING OF 10
ABRASION RESISTANCE	ASTM D968	≥ 50 L/mil	56.0 L/mil
PENCIL HARDNESS	ASTM D3363	≥ H	≥ H
COATING FILM ADHESION	AAMA 2605	NO LOSS OF ADHESION (0% FAILURE)	NO REMOVAL OF FILM OR BLISTERING
IMPACT RESISTANCE TEST	AAMA 2605	NO REMOVAL OF FILM FROM SUBSTRATE	NO REMOVAL OF FILM
GLOSS AT 60°C	ASTM D523	(±) 5%	28.3