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Dynamic Wind Uplift Resistance CSA A123.21-20 - Summary Document

Document No.: 22-06-B0091-2-AARS027

Document Date: February 7, 2023

element

Reference Documentation:

CSA A123.21-20 Report No: 22-06-B0091-2

Supplementary Report No.: 22-06-B0109 (February 7, 2023)

Manufacturer:	IKO Industries Ltd.	®	IKO System Identification:
	40 Hansen Road South		iko system identification:
	Brampton, Ontario, Canada		AARS027
	L6W 3H4		AARSU27

SECTION 1.0: Roof System Summary:

"IKO SA Base Sheet to Glass Coated IKOTherm" – Adhesive Applied Roofing System		
Roof Membrane - Cap Sheet:	Torchflex TP-250-Cap	
Roof Membrane – Base Sheet	Armourbond Flash	
Insulation:	IKOTherm III	
Insulation:	IKOTherm	
Vapour Retarder:	MVP	
Deck:	Steel Deck, 22 ga, RD938, 230 MPa (33.4 ksi)	

SECTION 2.0: System Dynamic Wind Uplift Resistance (DUR) Testing Details:

Test Date	Measured Dynamic Wind Uplift Resistance of tested specimen, as per CSA A123.21-20 kPa (psf)	Dynamic Wind Uplift Resistance Rating, DUR (with 1.5X safety factor) as per CSA A123.21-14 kPa (psf)
September 16, 2022	5.03 (105.0)	3.35 (70.0)

Measured Dynamic Wind Uplift Resistance: 5.03 kPa (105.0 psf)*

^{*} Value does not include resistance factor. Applicable resistance factor shall be applied.

SECTION 3.0: Tested Product and Substitutable Products:

Roof Membrane (Cap Sheet)			
Tested Product	Torchflex TP-250-Cap		
Product Size	Roll Thickness: 4.0 mm (0.15	8"), Roll Width: 1.0 m (39.6"),	Roll Length 8 m (26.2')
Attachment Method	Heat Welded		
Substitutable Product(s)			
Manufacturer	Product Identification		
IKO Industries	Torchflex TP-HD Cap	Torchflex TP-250-Cap (5.0mm)	PrevENt TP-250 Cap
	Torchflex Ultra TP-HD Cap	PrevENt TP-HD-Cap	PrevENt Premium TP-250- Cap
	ArmourCool Granular TP- HD-Cap	PrevENt ArmourCool Granular TP Cap	PrevENt ArmourCool HD Cap
	Carrara ArmourCool HD	-	-

Roof Membrane (Base Sheet)				
Tested Product	Armourbond Flash	Armourbond Flash		
Product Size	Roll Thickness: 2.5 mm (0.098"), Roll Width: 1	.0 m (39.6"), Roll Length 15 m (49')		
Attachment Method	Self-adhered			
Substitutable Product(s)				
Manufacturer	Product Id	Product Identification		
n/a	Armourbond Flash HD,	ArmourBond 180		

Cover Board			
Tested Product	Optional Layer		
Product Size	n/a		
Attachment Method	Ribbon adhered with IKO Millenni	um Adhesive	
Fastening Rate	305 mm (12") o.c.		
	Substitutable	Product(s)	
Manufacturer		Product Identification	
IKO Industries Ltd.	IKOTherm CoverShield (12.8 x 1220 x 1220 mm) (0.50" x 4' x 4')		
Georgia-Pacific	DensDeck Prime		
USG/CGC	Securock Glass-Mat	Securock Gypsum-Fiber	

Insulation (Top Layer)			
Tested Product	IKO IKOTherm III		
Product Size	38 x 1220 x 1220 mm (1.5	5" x 4' x 4')	
Attachment Method	Ribbon adhered with IKO	Ribbon adhered with IKO Millennium Adhesive	
Fastening Rate	305 mm (12") o.c.	305 mm (12") o.c.	
Substitutable Product(s)			
Manufacturer		Product Identification	
IKO Industries Ltd.	IKOTherm III 25 psi	IKOTherm III Tapered	



Insulation (Bottom Layer)				
Tested Product	IKO IKOTherm	IKO IKOTherm		
Product Size	38 x 1220 x 1220 mm (1.5"	x 4' x 4')		
Attachment Method	Ribbon adhered with IKO M	Ribbon adhered with IKO Millennium adhesive		
Fastening Rate	305 mm (12") o.c.	305 mm (12") o.c.		
	Substitutable Product(s)			
Manufacturer		Product Identification		
IKO Industries Ltd.	IKOTherm III	IKOTherm 25 psi	IKOTherm III 25 psi	
INO moustries Lta.	IKOTherm Tapered	IKOTherm III Tapered	IKOTherm 25 psi Tapered	

Vapour Retarder				
Tested Product	MVP			
Product Size	Roll Width 1 m (39.4	Roll Width 1 m (39.4"), Roll Length 32 m (105')		
Attachment Method	Self-adhered to sub	Self-adhered to substrate primed with IKO S.A.M. Adhesive		
Fastening Rate	n/a	n/a		
Substitutable Product(s)				
Manufacturer		Product Identification		
IKO Industries Ltd.	MVP Sand	Amourbond Flash Sand	AcrylicStick SA (Primerless)	

Thermal Barrier				
Tested Product	DensDeck Prime®			
Product Size	12.7 x 1220 x 2440 mm (1/2" x 4' x	8')		
Attachment Method	Ribbon adhered with IKO Millennium adhesive			
Fastening Rate	305 mm (12") o.c.			
	Substitutable Product(s)			
Manufacturer	Product Identification			
USG [®] /CGC	Securock® Glass-Mat	Securock® Gypsum-Fiber		

Cover Board/Insulation/Thermal Barrier Adhesive Securement		
Tested Product IKO Millennium Adhesive – ribbon adhered		
Fastening Rate	305 mm (12") o.c.	
Substitutional Product(s)		
Manufacturer	Product Identification	
n/a	n/a	

Note: This is not a comprehensive report but a <u>summary</u> of the performance results produced for the roof assembly documented herein tested in accordance to CSA A123.21-2020. Please refer to the reference documents stated on page 1, or consult the manufacturer, for detailed information pertaining to the test specimen configuration and construction.

The Substitutable Products referenced in this Element Summary Report have been established for IKO Industries as per Element Document 22-06-B0109 (February 7, 2023).

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Accreditation: Element is an ISO 17025 accredited test lab under A2LA. In addition, CSA A123.21 can be found under our scope of accreditation listing.

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