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Dynamic Wind Uplift Resistance CSA A123.21-2020 - Summary Document

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element

Reference Documentation:

CSA A123.21-2014 Report No: 22-06-B0008-1 Supplementary Report No.: 19-06-B0042-M RV2

Manufacturer:	IKO Industries Ltd.	®	IKO System Identification:
	40 Hansen Road South		iko system identification.
	Brampton, Ontario, Canada		AARS025
	L6W 3H4	•	AANSU25

SECTION 1.0: Roof System Summary:

"IKO INNOVI™ TPO OVER ADHERED THERMAL BARRIER" – Adhesive Adhered Roofing System		
Roof Membrane - Cap Sheet:	IKO Innovi TPO	
Cover Board:	GP 6.4 mm (1/4") DensDeck Prime®	
Insulation:	IKO IKOTherm™	
Insulation:	IKO IKOTherm™	
Vapour Retarder:	IKO MVP Vapour Retarder	
Thermal Barrier:	GP 12.7 mm (1/2") DensDeck Prime®	
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)
March 3, 2022	6.28 (131.25)	4.19 (87.50)

Measured Dynamic Wind Uplift Resistance: 6.28 kPa (131.25 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	IKO Innovi TPO – 45 mil		
Product Size	Roll Thickness: 1.14 mm (0.045"), Roll Width: 2	2.4 m (8'), Roll Length 30.5 m (100')	
Attachment Method	Fully adhered with IKO InnoviBond™ Membrane Adhesive SPR – see securement section for details		
	Substitutable Product(s)		
Manufacturer	Product Identification		
IKO Industries Ltd.	Innovi TPO - 60 mil Innovi TPO – 80 mil		

Cover Board			
Tested Product	GP DensDeck Prime®	GP DensDeck Prime®	
Product Size	6.4 x 1220 x 2240 mm (0.25" x 4' x	8')	
Attachment Method	Ribbon adhered with IKO Millennius	Ribbon adhered with IKO Millennium Adhesive	
Fastening Rate	305 mm (12") o.c.	305 mm (12") o.c.	
Substitutable Product(s)			
Manufacturer		Product Identification	
USG®/CGC	Securock® Glass-Mat Securock® Gypsum-Fiber		

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

Insulation (Bottom Layer)				
Tested Product	IKO IKOTherm	IKO IKOTherm		
Product Size	38 x 1220 x 1220 mm (1.5	38 x 1220 x 1220 mm (1.5" 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	IKOTherm 25 psi	IKOTherm III 25 psi	
	IKOTherm Tapered	IKOTherm III Tapered	IKOTherm 25 psi Tapered	



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

Thermal Barrier		
Tested Product	GP 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	

Membrane Adhesive Securement			
Tested Product InnoviBond Membrane Adhesive SPR			
Fastening Rate	Fully adhered (2 sided dry)		
	Substitutional Product(s)		
Manufacturer	Manufacturer Product Identification		
IKO Industries Ltd.	InnoviBond Membrane Adhesive		

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	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.

Approved by:

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Operations Manager Building Science Division

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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