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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: 21-06-B0043-4 Supplementary Report No.: 22-06-B0109

Manufacturer:	IKO Industries Ltd.	R	IKO System Identification:
	40 Hansen Road South		iko system identification.
	Brampton, Ontario, Canada		AARS024
	L6W 3H4	•	AARSU24

SECTION 1.0: Roof System Summary:

"IKO MOD-BIT ADHERED GYPSUM COVER BOARD" – Adhesive Adhered Roofing System		
Roof Membrane – Cap Sheet:	IKO ArmourStick HD-Cap	
Roof Membrane – Base Sheet	IKO ArmourStick HD-Base	
Cover Board:	Georgia-Pacific DensDeck® Prime	
Insulation:	IKO IKOTherm™	
Insulation:	IKO IKOTherm™	
Vapour Retarder:	IKO MVP™ Vapour Retarder	
Thermal Barrier:	Georgia-Pacific 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)
July 21, 2021	8.8 (183.8)	5.9 (122.5)

Measured Dynamic Wind Uplift Resistance: 8.8 kPa (183.8 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 ArmourStick HD-Cap				
Product Size	Product Size Roll Width 1 m (39.6"), Roll Length 8 m (26.2'), 4.5 mm (0.18" Thick) with 90 mm (3.5") Overlap				
Attachment Method	od Self-adhered to base sheet				
	Substitutable Product(s)				
Manufacturer	Product Identification				
IKO Industries Ltd.	ArmourStick PrevENt				
	Torchflex TP-180-Cap	Torchflex TP-HD-Cap	Torchflex TP-250-Cap		
IKO Industries Ltd.	Torchflex TP-250-Cap (5 mm)	PrevENt TP-250-Cap	Torchflex Ultra TP-HD-Cap		
IKO industries Ltd.	PrevENt TP-HD-Cap	PrevENt Premium TP-250-Cap	ArmourCool Granular TP-HD		
	PrevENt ArmourCool Granular TP	PrevENt ArmourCool HD Cap	Carrara ArmourCool HD		
IKO Industries Ltd.	Modiflex MP-180-cap	Modiflex MP-250-cap	Modiflex MP-HD-cap		
ino industries Ltd.	PrevENt MP-250-cap	PrevENt MP-HD-cap			

Roof Membrane (Base Sheet)				
Tested Product	IKO ArmourStick HD-Base			
Product Size	Roll Width 1 m (39.6"), Roll Length 10 m (33'), 2.5 mm (0.0984" Thick) with 90 mm (3.5") Overlap			
Attachment Method	Self-adhered to substrate primed with IKO S.A.M. adhesive			
Substitutable Product(s)				
Manufacturer	Product Identification			
IKO Industries Ltd.	Torchflex TF-95-SF-Base	Torchflex TP-180-FF-Base	Torchflex TP-180-SF-Base	
IKO industries Ltd.	Torchflex HD-FF-Base	Torchflex Ultra TP-HD-FF-Base		
	Modiflex MF-95-FS-Base	Modiflex MF-95-SS-Base	Modiflex MP-180-FS-Base	
IKO Industries Ltd.	Modiflex MP-180-SS-Base	Modiflex MP-180-FS-Base 3mm	Modiflex MP-HD-FS-Base	
	Modiflex MP-HD-SS-Base			

Cover Board			
Tested Product	GP DensDeck Prime		
Product Size	Product Size 6.4 x 1220 x 1220 mm (1/4" x 4' x 4')		
Attachment Method	Attachment Method Ribbon adhered with IKO Millennium adhesive		
Fastening Rate	Fastening Rate 305 mm (12") o.c.		
	Substitutable Product(s)		
Manufacturer	Manufacturer Product Identification		
n/a	n/a		

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

Insulation (Bottom Layer)				
Tested Product	IKO IKOTherm			
Product Size	38 x 1220 x 1220 mm (1.5" x 4' x	38 x 1220 x 1220 mm (1.5" x 4' x 4')		
Attachment Method	Ribbon adhered with IKO Millennium adhesive			
Fastening Rate	305 mm (12") o.c.			
	Substitu	utable Product(s)		
Manufacturer	cturer Product Identification			
IKO Industries Ltd.	IKOTherm III	IKOTherm 25 psi	IKOTherm III 25 psi	
ind industries Ltd.	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	Armourbond Flash Sand		

Thermal Barrier			
Tested Product	Tested Product GP DensDeck Prime®		
Product Size	Product Size 12.7 x 1220 x 2440 mm (1/2" x 4' x 8')		
Attachment Method	Attachment Method Ribbon adhered with IKO Millennium adhesive		
Fastening Rate	Fastening Rate 305 mm (12") o.c.		
	Substitutable Product(s)		
Manufacturer	Manufacturer Product Identification		
n/a	n/a		



Assembly Adhesive Securement			
Tested Product IKO Millennium adhesive – ribbon adhered			
Fastening Rate	Fastening Rate 305 mm (12") o.c.		
	Substitutional Product(s)		
Manufacturer	Manufacturer Product Identification		
n/a	n/a		

Membrane Cap Sheet Securement	
Tested Product	ArmourStick HD-Cap
Attachment Method	Self-adhered to base sheet
Manufacturer	Substitute Product Attachment Method
IKO Industries Ltd.	ArmourStick PrevENt self-adhered to base sheet
	Torchflex and TP cap sheets heat welded to base sheet
	Modiflex and MP cap sheets mopped to base sheet with hot asphalt

Membrane Base Sheet Securement	
Tested Product	ArmourStick HD-Base
Attachment Method	Self-adhered to substrate primed with IKO S.A.M. adhesive
Manufacturer	Substitute Product Attachment Method
IKO Industries Ltd.	Torchflex, SF and FF base sheets heat welded to substrate primed with IKO Mod-Bit Primer
	Modiflex, FS and SS base sheets mopped with hot asphalt to substrate primed with IKO Standard Asphalt Primer

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.

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Accreditation: Element is an ISO 17025 accredited test lab under International Accreditation Service "TL-407". In addition, CSA A123.21 can be found under our scope of accreditation listing.

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