

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

Document No.: 21-06-B0043-PARS019-A
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Reference Documentation:

CSA A123.21-2014 Report No: 21-06-B0043-3
Supplementary Report No.: 19-06-B0042-M RV2
20-06-P0086

Manufacturer:	IKO Industries Ltd.		IKO System Identification:
	40 Hansen Road South		
	Brampton, Ontario, Canada		
	L6W 3H4		PARS019

SECTION 1.0: Roof System Summary:

“IKO MOD-BIT – MECHANICALLY ATTACHED GYPSUM COVER BOARD” – Partially Attached 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 IKOTerm™
Insulation:	IKO IKOTerm™
Vapour Retarder:	IKO MVP™ Vapour Retarder
Thermal Barrier:	None
Deck:	Steel Deck, 22 ga, RD938, 230 MPa (33.4 ksi)

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

Test Date	Dynamic Wind Uplift Resistance (DUR) of tested specimen kPa (psf)	Dynamic Wind Uplift Resistance (DUR)* Rating (with 1.5X safety factor) kPa (psf)
July 20, 2021	6.1 (127.5)	4.1 (85)

Dynamic Wind Uplift Resistance Rating (DUR): 4.1 kPa (85 psf)

SECTION 3.0: Tested Product and Substitutable Products:

Roof Membrane (Cap Sheet)			
Tested Product	IKO ArmourStick HD-Cap		
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	Self-adhered to base sheet		
Fastening Rate	n/a		
Substitutable Product(s)			
Manufacturer	Product Identification		
IKO Industries Ltd.	ArmourStick PrevENT		
IKO Industries Ltd.	Torchflex TP-180-Cap	Torchflex TP-HD-Cap	Torchflex TP-250-Cap
	Torchflex TP-250-Cap (5 mm)	PrevENT TP-250-Cap	Torchflex Ultra TP-HD-Cap
	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
	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		
Fastening Rate	n/a		
Substitutable Product(s)			
Manufacturer	Product Identification		
IKO Industries Ltd.	Torchflex TF-95-SF-Base	Torchflex TP-180-FF-Base	Torchflex TP-180-SF-Base
	Torchflex HD-FF-Base		
IKO Industries Ltd.	Modiflex MF-95-FS-Base	Modiflex MF-95-SS-Base	Modiflex MP-180-FS-Base
	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	12.7 x 1220 x 2440 mm (1/2" x 4' x 8')
Attachment Method	Mechanically attached
Fastening Rate	1 per 2.00 ft² (0.19 m²)
Substitutable Product(s)	
Manufacturer	Product Identification
n/a	n/a

Insulation (Top Layer)			
Tested Product	IKO IKOTerm		
Product Size	38 x 1220 x 2440 mm (1.5" x 4' x 8')		
Attachment Method	Loose laid or pre-secured		
Fastening Rate	n/a		
Substitutable Product(s)			
Manufacturer	Product Identification		
IKO Industries Ltd.	IKOTerm III	IKOTerm 25 psi	IKOTerm III 25 psi
	IKOTerm Tapered	IKOTerm III Tapered	IKOTerm 25 psi Tapered

Insulation (Bottom Layer)			
Tested Product	IKO IKOTerm		
Product Size	38 x 1220 x 2440 mm (1.5" x 4' x 8')		
Attachment Method	Loose laid or pre-secured		
Fastening Rate	n/a		
Substitutable Product(s)			
Manufacturer	Product Identification		
IKO Industries Ltd.	IKOTerm III	IKOTerm 25 psi	IKOTerm III 25 psi
	IKOTerm Tapered	IKOTerm III Tapered	IKOTerm 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	
Fastening Rate	n/a	
Substitutable Product(s)		
Manufacturer	Product Identification	
IKO Industries Ltd.	MVP Sand	Armourbond Flash Sand

Thermal Barrier		
Tested Product	Optional layer	
Product Thickness	n/a	
Attachment Method	Loose laid or pre-secured	
Fastening Rate	n/a	
Substitutable Product(s)		
Manufacturer	Product Identification	
Georgia-Pacific®	DensDeck®	DensDeck Prime
USG®/CGC	Securock® Glass-Mat	Securock® Gypsum-Fiber
Generic	Any IKO approved Gypsum Board meeting the requirements of ASTM C1177 or ASTM C1278	


Cover Board Securement	
Tested Product	IKO InnoviFast #14 All Purpose (AP) Fastener with InnoviFast 76 mm (3") Round Insulation Plate
Fastening Rate	1 per 2.00 ft ² (0.19 m ²) - Sixteen (16) per 12.7 x 1220 x 2440 mm (0.5" x 4' x 8') board
Substitutional Product(s)	
Manufacturer	Product Identification
SFS - Dekfast™	#14 Dekfast Fastener with 3" (76 mm) round (PLT-R-3) Metal Insulation Plate
OMG®	#14 HD Roofing Fastener with 3" (76 mm) Galvalume Plate (SPGA3C)
Trufast®	#14 HD Roofing Fastener with 76 mm (3") round (MP-3000) Metal Insulation Plate

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

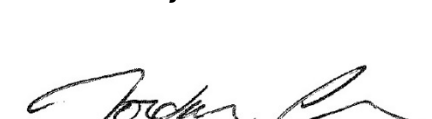
Membrane Base Sheet Securement	
Tested Product	ArmourStick HD-Base
Attachment Method	Self-adhered to substrate primed with IKO S.A.M. adhesive
Manufacturer	Substitute Product Attachment Method
IKO Industries Ltd.	Torchflex, SF and FF base sheets heat welded to substrate primed with IKO Mod-Bit Primer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

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