

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

Document No.: 21-06-B0043-MARS016-A RV1
Document Date: October 26, 2021

Reference Documentation:

CSA A123.21-2014 Report No: System A – 21-06-B0043-1
System B – 18-06-B0147-1 RV1
Supplementary Report No.: 19-06-B042-M RV2

Manufacturer:	IKO Industries Ltd.		IKO System Identification:
	40 Hansen Road South		
	Brampton, Ontario, Canada		
	L6W 3H4		MARS016

SECTION 1.0: Roof System Summary:

“IKO MOD-BIT – MECHANICALLY ATTACHED PROTECTOBASE 180” – Mechanically Attached Roofing System	
Roof Membrane – Cap Sheet:	IKO Torchflex TP-180-Cap
Roof Membrane/Cover Board:	IKO Protectobase™ 180
Insulation:	IKO IKOTherm™
Insulation:	IKO IKOTherm™
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 Uplift Resistance (DUR) Testing Details:

Test Date	System Designation	Dynamic Wind Uplift Resistance (DUR) of tested specimen kPa (psf)	Dynamic Wind Uplift Resistance (DUR)* Rating (with 1.5X safety factor) kPa (psf)
July 19, 2021	A	8.0 (168)	5.4 (112)
August 27, 2018	B	4.3 (90)	2.9 (60)

Dynamic Uplift Resistance Rating (DUR) System A: 5.4 kPa (112 psf)

Dynamic Uplift Resistance Rating (DUR) System B: 2.9 kPa (60 psf)

SECTION 3.0: Tested Product and Substitutable Products:

Roof Membrane (Cap Sheet)			
Tested Product	IKO Torchflex TP-180-Cap		
Product Size	Roll Width 1 m (37"), Roll Length 8 m (26')		
Attachment Method	Heat welded		
Substitutable Product(s)			
Manufacturer	Product Identification		
IKO Industries Ltd.	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/Cover Board	
Tested Product	IKO Protectobase 180
Product Size	7.0 x 915 x 2440 mm (9/32" x 3' x 8')
Attachment Method	Mechanically attached
Fastening Rate	In-seam fastening – see securement section for details
Substitutable Product(s)	
Manufacturer	Product Identification
IKO Industries Ltd.	ShieldBase 180 ShieldBase 180 Sanded

Insulation (Top Layer)			
Tested Product	IKO IKOTerm		
Product Size	38 x 1220 x 2440 mm (1.5" x 4' x 8')		
Attachment Method	Pre-secured– see pre-securement section for details		
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	

Membrane Securement				
System Designation	Fastener Spacing (on centre)		Row Spacing (on centre)	
	mm	inch	mm	inch
A	305	12	914	36
B	457	18	914	36
Tested Product	IKO InnoviFast™ #14 All Purpose (AP) Fastener with 60 mm (2-3/8") HD Seam Plate (barbed)			
Substitutable Product(s)				
Manufacturer	Product Identification			
SFS - Dekfast™	#14 Dekfast™ Fastener with 2.4" (60 mm) round (PLT-R-2-3/8-6B) Barbed Stress Plate			
Trufast®	#14 HD Roofing Fastener with 2.4" (60 mm) round (MP-2400) Barbed Metal Seam Plate			
OMG®	#14 Heavy Duty Roofing Fastener with 2.4" (60 mm) round (PGA238) Barbed Seam Plate			

Insulation/Cover Board Pre-securement	
Tested Product	IKO InnoviFast™ #12 Insulation Fastener with InnoviFast 76 mm (3") Round Insulation Plate
Fastening Rate	Minimum 1 per 8 ft² (0.74 m²), Four (4) per 12.7 x 1220 x 2440 mm (1/2" x 4' x 8')
Substitutable Product(s)	
Manufacturer	Product Identification
Trufast®	#12 DP or #14 HD Roofing Fastener with 3" (76 mm) Round Metal Insulation Plate (MP-3000)
SFS - DekFast™	#12 or #14 (DF-PH3) Fastener with 3" (76 mm) Round Metal Insulation Plate (PLT-R-3)
OMG®	#12 or #14 RoofGrip/ HD Roofing Fastener with 3" (76 mm) Round Galv. Plate (SPGA3C)

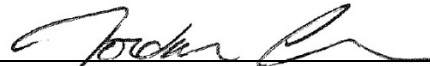
Note: This is not a comprehensive report but a summary of the performance results produced for the roof assembly documented herein tested in accordance to CSA A123.21-2020. Please refer to the reference documents stated on page 1 for detailed information pertaining to the test specimen configuration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

Reported by:

A handwritten signature in black ink, appearing to read "Allan Lawrence", written over a horizontal line.

Allan Lawrence, Ext. 11212
Supervisor, Building Systems
Industrials Division

Authorized by:

A handwritten signature in black ink, appearing to read "Jordan Church", written over a horizontal line.

Jordan Church, B. Tech., Ext. 11546
Ops. / Tech. Manager, Bldg. Science & Fire Testing
Industrials Division

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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