

P: 1 905 822 4111 F: 1 905 823 1446

info.toronto.industrials@element.com element.com

Dynamic Wind Uplift Resistance CSA A123.21-2014 – Summary Document

Document No.: 19-06-B0127-PARS012-A RV1

Document Date: November 11, 2019

Reference Documentation:

CSA A123.21-2014 Report No: 18-06-B0110 Supplementary Report No.: 19-06-B0042-M

Manufacturer:	IKO Industries Ltd.	R	IKO System Identification:
	40 Hansen Road South		iko System identinication.
	Brampton, Ontario, Canada		PARS012
	L6W 3H4		PAR5012

SECTION 1.0: Roof System Summary:

"IKO MOD-BIT – MA GYPSUM COVER BOARD" – Partially Attached Roofing System		
Roof Membrane – Cap Sheet:	IKO Torchflex TP-180-Cap	
Roof Membrane – Base Sheet	IKO Torchflex TF-95-FF-Base	
Cover Board:	12.7 mm (1/2") GP DensDeck Prime	
Insulation:	IKO IKOTherm	
Insulation:	IKO IKOTherm	
Vapour Retarder:	IKO Armourgard 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	Dynamic Wind Uplift Resistance (DUR) of tested specimen kPa (psf)	Dynamic Wind Uplift Resistance (DUR)* Rating (with 1.5X safety factor) kPa (psf)
June 08, 2018	3.4 (70)	2.2 (47)

Dynamic Wind Uplift Resistance Rating (DUR): 2.2 kPa (47 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 (39.6"), roll Leng	gth 8 m (26.2')		
Attachment Method	Heat Welded			
Substitutable Product(s)				
Manufacturer	Product Identification			
	Torchflex TP-HD-Cap	Torchflex TP-250-Cap	Torchflex TP-250-Cap (5 mm)	
	PrevENt TP-250-Cap	PrevENt TP-HD-Cap	PrevENt Premium TP-250-Cap	
IKO Industries Ltd.	ArmourCool Granular TP-HD	PrevENt ArmourCool Granular TP	PrevENt ArmourCool HD Cap	
	Carrara ArmourCool HD			
IKO Industrias Ltd	Modiflex MP-180-cap	Modiflex MP-250-cap	Modiflex MP-HD-cap	
IKO Industries Ltd.	PrevENt MP-250-cap	PrevENt MP-HD-cap		

Roof Membrane (Base Sheet)			
Tested Product	IKO Torchflex TF-95-FF-Base		
Product Size	Roll Width: 1 m (39.6"), roll L	Roll Width: 1 m (39.6"), roll Length 15 m (49.0')	
Attachment Method	Heat Welded		
Substitutable Product(s)			
Manufacturer	Product Identification		
IVO Industrias Ltd	Torchflex TF-95-SF-Base	Torchflex TP-180-FF-Base	Torchflex TP-180-SF-Base
IKO Industries Ltd.	Torchflex 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® – 1220 x 24	40 mm (4' x 8')	
Product Thickness	12.7 mm (1/2")		
Attachment Method	Mechanically attached		
Fastening Rate	1 per 2.0 ft ² (0.019 m ²)		
	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	51 x 1220 x 2440 mm (2" x	4' x 8')		
Attachment Method	Loose laid, pre-secured or	Loose laid, pre-secured or adhered		
Fastening Rate	n/a			
Substitutable Product(s)				
Manufacturer	Product Identification			
II/O las de catala a latal	IKOTherm III	IKOTherm 25 psi	IKOTherm III 25 psi	
IKO Industries Ltd.	IKOTherm Tapered	IKOTherm III Tapered	IKOTherm 25 psi Tapered	

Insulation (Bottom Layer)				
Tested Product	IKO IKOTherm	IKO IKOTherm		
Product Size	51 x 1220 x 2440 mm (2"	51 x 1220 x 2440 mm (2" x 4' x 8')		
Attachment Method	Loose laid, pre-secured or	Loose laid, pre-secured or adhered		
Fastening Rate	n/a	n/a		
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 Armourgard Vapour Retarder		
Product Size	Roll Width: 0.9 m (36"), Roll Length 20	m (65'), 1.4 mm (0.053"), 50.8 mm (2") Overlap	
Attachment Method	Loose laid or adhered to substrate prim	Loose laid or adhered to substrate primed with IKO S.A.M. adhesive	
Fastening Rate	n/a		
Substitutable Product(s)			
Manufacturer	Product Identification		
IKO Industries Ltd.	MVP Vapour Retarder	MVP Sand	
	Armourbond Flash Sand	Armourgard Ice and Water Protector Commercial	
Generic	Any approved generic Kraft Paper or polyethylene vapour retarder		

Thermal Barrier			
Tested Product	GP DensDeck Prime®		
Product Size	12.7 x 1220 x 2440 mm (1/2" x 4' x 8')		
Attachment Method	Loose laid, pre-secured or adhered	Loose laid, pre-secured or adhered	
Fastening Rate	n/a		
Substitutable Product(s)			
Manufacturer	Product Identification		
Georgia-Pacific®	DensDeck [®]		
USG®/CGC	Securock® Glass-Mat	Securock® Gypsum-Fiber	
Generic	Any approved Gypsum Board meeting the requirements of ASTM C1177 or ASTM C1278		



Cover Board Securement		
Tested Product	Trufast® #14 HD Roofing Fastener with 76 mm (3") round (MP-3000) Metal Insulation Plate	
Fastening Rate	1 per 2.0 ft² (0.019 m²) – Sixteen (16) per 1220 x 2440 mm (1/2" x 4' x 8') board	
Substitutional Product(s)		
Manufacturer	Product Identification	
SFS	#14 Dekfast Fastener with 3" (76 mm) round (PLT-R-3) Metal Insulation Plate	
OMG®	Heavy Duty #14 Roofing Fastener with 3" (76 mm) Galvalume Plate (SPGA3C)	

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 A123.21-2014. 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.

Reported by:

Allan Lawrence, Ext. 11212 Supervisor, Building Systems

Industrials Division

Authorized by:

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.

This document and service are covered under Element Materials Technology Canada Inc.'s. Standard Terms and Conditions of Contract which may be found on our company's website www.element.com, or by calling 1-866-263-9268.