


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

Document No.: 19-06-B0127-PARS007-A RV1
Document Date: November 11, 2019

Reference Documentation:

CSA A123.21-2014 Report No: 16-06-M0239-2
Supplementary Report No.: 19-06-B0042-M

Manufacturer:	IKO Industries Ltd.		IKO System Identification:
	40 Hansen Road South		
	Brampton, Ontario, Canada		PARS007
	L6W 3H4		

SECTION 1.0: Roof System Summary:

"IKO MOD-BIT – MA ISO INSULATION WITH SELF ADHERED VB" – 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:	IKO Protectoboard
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 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)
August 18, 2016	3.6 (75)	2.4 (50)

Dynamic Wind Uplift Resistance Rating (DUR): 2.4 kPa (50 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 Length 8 m (26.2')		
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	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 Torchflex TF-95-FF-Base		
Product Size	Roll Width: 1 m (39.6"), roll Length 15 m (49.0')		
Attachment Method	Heat Welded		
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	IKO Protectoboard
Product Size	3 x 1220 x 1524 mm (1/8" x 4' x 5')
Attachment Method	Ribbon adhered with IKO Millennium adhesive
Fastening Rate	305 mm (12") o.c.
Substitutable Product(s)	
Manufacturer	Product Identification
IKO Industries Ltd.	Protectobase 180

Insulation (Top Layer)			
Tested Product	IKO IKOTerm		
Product Size	63.5 x 1220 x 2440 mm (2.5" x 4' x 8')		
Attachment Method	Mechanically attached		
Fastening Rate	1 per 5.33 ft ² (0.050 m ²)		
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	51 x 1220 x 2440 mm (2" x 4' x 8')		
Attachment Method	Loose laid, pre-secured or adhered		
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 37.2 m (122')		
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		Armourgard Ice and Water Protector Commercial

Thermal Barrier			
Tested Product	Optional layer		
Product Thickness	n/a		
Attachment Method	Loose laid, pre-secured or adhered		
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 approved Gypsum Board meeting the requirements of ASTM C1177 or ASTM C1278		

Insulation (Top Layer) Securement	
Tested Product	Trufast® #14 HD Roofing Fastener with 76 mm (3") round (MP-3000) Metal Insulation Plate
Fastening Rate	1 per 5.33 ft² (0.037 m²) - Six (6) per 2.5 x 1220 x 2440 mm (2.5" x 4' x 8') board
Substitutional Product(s)	
Manufacturer	Product Identification
OMG®	Heavy Duty #14 Roofing Fastener with 3" (76 mm) Galvalume 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 A123.21-2014. 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.