

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

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Reference Documentation:

CSA A123.21-2014 Report No: 16-06-M0114-3
Supplementary Report No.: 19-06-B0042-M

Manufacturer:	IKO Industries Ltd.		IKO System Identification:
	40 Hansen Road South		
	Brampton, Ontario, Canada		PARS004
	L6W 3H4		

SECTION 1.0: Roof System Summary:

“IKO MOD-BIT – MECHANICALLY ATTACHED ISO & KRAFT” – Partially Attached Roofing System	
Roof Membrane – Cap Sheet:	IKO Torchflex TP-180-Cap
Cover Board:	IKO Torchflex TF-95-FF-Base
Support Panel:	IKO Protectoboard
Insulation:	IKO IKOTherm
Insulation:	IKO IKOTherm
Vapour Retarder:	IKO Armourgard Vapour Retardant
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 (37"), 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	
	Torchflex TP-HD-Cap	Torchflex TP-250-Cap	Torchflex TP-250-Cap (5 mm)

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 1219 x 1524 mm (1/8" x 4' x 8')
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 Shieldbase 180

Insulation (Top Layer)			
Tested Product	IKO IKOTerm		
Product Size	51 x 1220 x 2438 mm (2" x 4' x 8')		
Attachment Method	Mechanically attached		
Fastening Rate	1 per 4.0 ft ² (0.037 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 2438 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 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		
Fastening Rate	n/a		
Substitutable Product(s)			
Manufacturer	Product Identification		
IKO Industries Ltd.	MVP	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	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 4.0 ft ² (0.037 m ²) - Eight (8) per 1220 x 2440 mm (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 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.

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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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