

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

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Reference Documentation:

CSA A123.21-2014 Report No: 18-06-B0192-3
Supplementary Report No.: 19-06-B0042-M

Manufacturer:	IKO Industries Ltd.		IKO System Identification:
	40 Hansen Road South		
	Brampton, Ontario, Canada		
	L6W 3H4		PARS014

SECTION 1.0: Roof System Summary:

"IKO MOD-BIT – ASPHALTIC COVER BOARD & MA THERMAL BARRIER" – Partially Attached Roofing System	
Roof Membrane – Cap Sheet:	IKO Torchflex TP-180-Cap
Roof Membrane/Cover Board:	IKO Protectobase 180
Insulation:	IKO IKOTerm
Insulation:	Truefoam Type 1 EPS Insulation
Vapour Retarder:	IKO Torchflex TF-95-SF
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)
November 21, 2018	6.3 (131)	4.2 (88)

Dynamic Wind Uplift Resistance Rating (DUR): 4.2 kPa (88 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 (36.9"), 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/Cover Board	
Tested Product	IKO Protectobase 180
Product Size	5.4 x 914 x 2440 mm (1/8" x 3' 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	Protectoboard with Torchflex TP-180-FF-Base

Insulation (Top Layer)			
Tested Product	IKO IKOTerm		
Product Size	51 x 1220 x 1220 mm (2" x 4' x 4')		
Attachment Method	Ribbon adhered with IKO Millennium adhesive		
Fastening Rate	305 mm (12") o.c.		
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	Truefoam Type 1 EPS Insulation		
Product Size	51 x 1220 x 1220 mm (2" x 4' x 4')		
Attachment Method	Ribbon adhered with IKO Millennium adhesive		
Fastening Rate	305 mm (12") o.c.		
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
Generic	Any approved Type 1, 2, 3 or 4 EPS meeting the requirements of CAN/ULC S-701 and ASTM C578		

Vapour Retarder		
Tested Product	IKO Torchflex TF-95-SF	
Product Size	Roll Width: 1 m (39.4"), roll Length 8 m (26.2'), (2.2 mm / 0.087") with 76 mm (3") Overlap	
Attachment Method	Heat Welded	
Fastening Rate	n/a	
Substitutable Product(s)		
Manufacturer	Product Identification	
IKO Industries Ltd.	Torchflex TP-180-SF	
IKO Industries Ltd	Modiflex MF-95-SS	Modiflex MP-180-SS

Thermal Barrier		
Tested Product	GP 12.7 mm (1/2") 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 2.67 ft² (0.025 m²)	
Substitutable Product(s)		
Manufacturer	Product Identification	
Georgia-Pacific®	DensDeck®	
USG®/CGC	Securock® Glass-Mat	Securock® Gypsum-Fiber

Thermal Barrier Securement	
Tested Product	Trufast® #14 HD Roofing Fastener with 76 mm (3") round (MP-3000) Metal Insulation Plate
Fastening Rate	1 per 2.67 ft² (0.025 m²) - Twelve (12) per 12.7 x 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 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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