


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

Document No.: 23-06-B0009-2-AARS029
Document Date: May 29, 2023

Reference Documentation:

CSA A123.21-2014 Report No: 23-06-B0009-2
Supplementary Report No.: 22-06-B0109 _Revised 3-6-2023

Manufacturer:	IKO Industries Ltd.		IKO System Identification:
	40 Hansen Road South		
	Brampton, Ontario, Canada		
	L6W 3H4		AARS029

SECTION 1.0: Roof System Summary:

"IKO AARS029 – SELF-ADHERED MOD-BIT BASE TO ORGANIC FACED ISO" – Adhesive Adhered Roofing System	
Roof Membrane – Cap Sheet:	IKO Torchflex™ TP-250 Cap
Roof Membrane (Base):	Armourbond Flash Base Sheet
Insulation:	IKO IKOTerm
Insulation:	IKO IKOTerm
Vapour Retarder:	IKO MVP™
Thermal Barrier:	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	Measured Dynamic Wind Uplift Resistance of tested specimen, as per CSA A123.21-20 kPa (psf)	Dynamic Wind Uplift Resistance Rating, DUR (with 1.5X safety factor) as per CA A123.21-14 kPa (psf)
February 21, 2023	5.027 kPa (105 PSF)	3.52 kPa (70 PSF)

Measured Dynamic Wind Uplift Resistance: 5.027 kPa (105 PSF)*

** Value does not include resistance factor. Applicable resistance factor shall be applied.*

SECTION 3.0: Tested Product and Substitutable Products:

Roof Membrane (Cap Sheet)			
Tested Product	Torchflex TP-250-Cap		
Product Size	Roll Thickness: 4.0 mm (0.158”), Roll Width: 1.0 m (39.6”), Roll Length 8 m (26.2')		
Attachment Method	Heat Welded		
Substitutable Product(s)			
Manufacturer	Product Identification		
IKO Industries Ltd.	Torchflex TP-250-Cap/5mm	Torchflex TP-HD-Cap	Prevent TP-250-Cap
	Prevent TP-250-Cap/5mm	Prevent TP-HD-Cap	Prevent TP-HD Cap/5mm
	Armourcool Granular TP-HD-Cap	Carrara Torchflex TP-250-Cap (18 ft)	Carrara Armourcool Granular Prevent Premium TP
	Carrara Armourcool Granular TP-HD-Cap		

Roof Membrane (Base Sheet)		
Tested Product	Armourbond Flash Base Sheet	
Product Size	Roll Thickness: 2.5 mm (0.098”), Roll Width: 1.0 m (39.6”), Roll Length 15 m (49’)	
Attachment Method	Self-Adhered	
Substitutable Product(s)		
Manufacturer	Product Identification	
IKO Industries Ltd.	Armourbond Flash HD	ArmourBond 180

Cover Board	
Tested Product	Optional layer
Product Size	n/a
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 ShieldPlus (12.7 x 1220 x 1220 mm) (½" x 4' x 4')

Insulation (Top Layer)			
Tested Product	IKO IKOTherm		
Product Size	38 x 1220 x 1220 mm (1.5" 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 Tapered	IKOTherm 25 psi	IKOTherm 25 psi Tapered

Insulation (Bottom Layer)			
Tested Product	IKO IKOTerm		
Product Size	38 x 1220 x 1220 mm (1.5" 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 Tapered	IKOTerm 25 psi	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 primed with IKO S.A.M. Adhesive
Fastening Rate	n/a
Substitutable Product(s)	
Manufacturer	Product Identification
IKO Industries Ltd.	MVP Sand
	AcrylicStick SA*

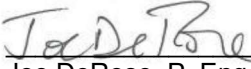
*Acrylic SA is a primerless vapor retarder and is to be applied to Thermal Barrier without the use of IKO S.A.M. Adhesive

Thermal Barrier		
Tested Product	DensDeck Prime®	
Product Size	12.7 x 1220 x 2440 mm (1/2" 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	
USG®/CGC	Securock® Glass-Mat	Securock® Gypsum-Fiber

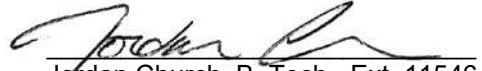
Cover Board/Insulation/Thermal Barrier Adhesive Securement	
Tested Product	IKO Millennium Adhesive – ribbon adhered
Fastening Rate	305 mm (12") o.c.
Substitutional Product(s)	
Manufacturer	Product Identification
n/a	n/a

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, or consult the manufacturer, for detailed information pertaining to the test specimen configuration and construction.

Approved by:


Joe DeRose, P. Eng. Ext. 10221
Technical Manager
Building Science Division

Reported by:


Jordan Church, B. Tech., Ext. 11546
General Manager
Building Science Division

Accreditation: Element is an ISO 17025 accredited test lab under A2LA. In addition, CSA A123.21 can be found under our scope of accreditation listing.

This report is related only to the sample identified and shall not be reproduced, except in full, without approval and is covered under Element Materials Technology Canada Inc. Standard Terms and Conditions of Contract, which is accessible at www.element.com, or by calling 1-866-263-9268. Direct readings reported form the basis for acceptance or rejection (pass/fail) and do not take into account or incorporate uncertainty.