

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

Document No.: 21-06-B0067-TC1 RV1 – PFL1 – AARS SBS System #1
Document Date: October 7, 2021

Reference Documentation:

CSA A123.21-2014 Report No.: 21-06-B0067-1 – PFL2

Distributor:	Plasti-Fab Ltd.	System Identification:
	2891 Sunridge Way NE, Suite 300	
	Calgary, Alberta	
	Canada	
	T1Y 7K7	AARS SBS SYSTEM #1

SECTION 1.0: Roof System Summary:

“AARS SBS System #1” – Adhesive Applied Roofing System	
Roof Membrane – Cap Sheet:	IKO Torchflex TP-180-Cap
Roof Membrane/Cover Board:	IKO Protectobase 180
Insulation (Top Layer):	IKO IKOTerm
Insulation (Bottom Layer):	Plasti-Fab PlastiSpan HD EPS
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 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 22, 2021	7.2 (150)	4.8 (100)

Dynamic Uplift Resistance Rating (DUR): 4.8 kPa (100 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-250-Cap	Torchflex TP-250-Cap (5 mm)	Torchflex TP-HD-Cap
	Modiflex MP-180-Cap	Modiflex MP-250-Cap	Modiflex MP-HD-Cap
	PrevENT TP-250-Cap	PrevENT MP-250-Cap	PrevENT Premium-TP-250-Cap
	PrevENT TP-HD-Cap	PrevENT MP-HD-Cap	PrevENT ArmourCool-HD-Cap
	PrevENT ArmourCool-Granular-TP-Cap	ArmourCool Granular-TP-HD-Cap	Carrara ArmourCool-HD-Cap

Roof Membrane (Base Sheet) / Cover Board			
Tested Product	IKO Protectobase 180 (heat welded board and base sheet)		
Product Size	5.4 x 914 x 2438 mm (1/8" x 3' x 8')		
Attachment Method	Ribbon adhered with IKO Millennium adhesive		
Fastener Rate	305 mm (12") o.c.		
Substitutable Product(s)			
Manufacturer	Product Identification		
IKO Industries Ltd.	Torchflex TP-180-FF-Base	Torchflex TP-180-SF-Base (3.0 mm)	Torchflex TP-180-SF-Base (5.0 mm)
	Torchflex TP-HD-FF-Base	Modiflex MP-180-FS-Base	Modiflex MP-180-SS-Base
	Modiflex MP-180-FS-Base (3.0 mm)	Modiflex MP-HD-FS-Base	Modiflex MP-HD-SS-Base
	Above membranes must be used in combination with IKO Protectoboard		

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 25 psi	IKOTerm III	IKOTerm III 25 psi
	IKOTerm 25 psi Tapered	IKOTerm III Tapered	

Insulation (Bottom Layer)			
Tested Product	Plasti-Fab PlastiSpan HD EPS Insulation (<i>evaluated product</i>)		
Product Size	51 x 1220 x 2440 mm (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		
Plasti-Fab Ltd.	PlastiSpan® 25	PlastiSpan® 30	EnerSpan® Type 2
	EnerSpan® Type 3	EnerSpan® 30	

Vapour Retarder		
Tested Product	IKO MVP Vapour Retarder	
Product Size	Roll Width 914 mm (36"), Roll Length 24.4 m (80'), Thick 1.4 mm (0.053"), Overlap 76 mm (3")	
Attachment Method	Self-adhered to substrate primed with IKO S.A.M. adhesive	
Fastening Rate	Full coverage	
Manufacturer	Product Identification	
IKO Industries Ltd.	MVP Vapour Retarder	Armourbond Flash Sand

Thermal Barrier		
Tested Product	Optional layer	
Product Thickness	n/a	
Attachment Method	Ribbon adhered with IKO Millennium adhesive	
Fastening Rate	305 mm (12") o.c.	
Substitutable Product(s)		
Manufacturer	Product Identification	
Georgia-Pacific®	DensDeck®	DensDeck Prime®

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.

Reported by:

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