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

Document No.: 21-06-B0047-1-TS
Document Date: September 15, 2022

Reference Test Report No: 21-06-B0047-1

Manufacturer:	Siplast		**Siplast System Identification:**
	201 Bewicke Ave., Suite 208		
	N. Vancouver, BC, Canada		**SIP AARS-003**
	V7M 3M7		

SECTION 1.0: Roof System Summary:

"Siplast P20/30 with PA-311 & Adhered Gypsum Cover Board @ 6 in. o.c." – Adhesive Adhered Roofing System	
Roof Membrane – Cap Sheet:	Paradiene 30 FR
Roof Membrane – Base Sheet:	Paradiene 20
Cover Board:	DensDeck® Prime
Insulation:	Paratherm
Insulation:	Paratherm
Vapour Retarder:	Siplast SA Vapor Retarder
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)**
March 29, 2022	4.309 (90)	2.873 (60)

Measured Dynamic Wind Uplift Resistance: 4.309 kPa (90 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	Paradiene 30 FR		
Product Size	Roll Width 1 m (39.4"), Roll Length, 10.21 m (33.5'), Thickness 3.3 mm (130 mils), Selvage Width 76 mm (3")		
Attachment Method	PA-311 R Adhesive – full coverage		
Substitutable Product(s)			
Manufacturer	**Product Identification**		
Siplast	Paradiene 30 FR BW	Paradiene 30 HT FR	
	Paradiene 30 HT FR BW	Paradiene 40 FR	Paradiene 40 FR BW
	Parafor 30	Parafor 50	Parafor 50 BW
	Paratech Glass Cap	Paratech Glass Cap FR	Paratech 180 Cap
	Paratech 180 Cap FR	Paratech 250 Cap	Paratech 250 Cap FR

Roof Membrane (Base Sheet)			
Tested Product	Paradiene 20		
Product Size	Roll Width 1 m (39.4"), Roll Length, 15.24 m (50'), Thickness 2.3 mm (91 mils), Selvage Width 76 mm (3")		
Attachment Method	PA-311 R Adhesive – full coverage		
Substitutable Product(s)			
Manufacturer	**Product Identification**		
Siplast	Paradiene 20 HV	Paradiene 20 EG	Paradiene 20 HT
	Paradiene 20 PR	Paradiene 20	Paratech 180 Base
	Paratech Glass Base	Paratech Glass Base 3.0	IREX HT
	IREX 40		

Cover Board	
Tested Product	GP DensDeck Prime
Product Size	6.4 x 1220 x 1220 mm (1/4" x 4' x 4')
Attachment Method	Parafast Adhesive C at 152 mm (6") o.c.
Substitutable Product(s)	
Manufacturer	**Product Identification**
n/a	n/a

Insulation (Top Layer)		
Tested Product	Paratherm	
Product Size	38 x 1220 x 1220 mm (1.5" x 4' x 4')	
Attachment Method	Parafast Adhesive C at 152 mm (6") o.c.	
Substitutable Product(s)		
Manufacturer	**Product Identification**	
Siplast.	Paratherm W	Paratherm H

Insulation (Bottom Layer)		
Tested Product	Paratherm	
Product Size	38 x 1220 x 1220 mm (1.5" x 4' x 4')	
Attachment Method	Parafast Adhesive C at 152 mm (6") o.c.	
Substitutable Product(s)		
Manufacturer	**Product Identification**	
Siplast.	Paratherm W	Paratherm H

Vapour Retarder	
Tested Product	Siplast SA Vapor Retarder
Product Size	Roll width 1.14 m (45"), roll length 40.84 m (134'), 0.81 mm (32 mils) thick, Selvage Width 76 mm (3")
Attachment Method	self-adhered
Substitutable Product(s)	
Manufacturer	**Product Identification**
n/a	n/a

Thermal Barrier	
Tested Product	GP DensDeck Prime®
Product Size	12.7 x 1220 x 2440 mm (1/2" x 4' x 8')
Attachment Method	Parafast Adhesive C at 152 mm (6") o.c.
Substitutable Product(s)	
Manufacturer	**Product Identification**
n/a	n/a

Assembly Adhesive Securement	
Tested Product	Parafast Adhesive C
Fastening Rate	Ribbon adhered at 152 mm (6") o.c.
Substitutional Product(s)	
Manufacturer	**Product Identification**
Siplast	Parafast Adhesive

Notes: 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.

The Substitutable Products referenced in this Element Summary Report have been established for Siplast by PRI Construction Materials Technologies LLC engineering evaluation report "Dynamic Uplift Resistance (Dur) Evaluation of Siplast Roof Systems (Project No. 824a0005) dated April 18, 2022. In addition, Element has included additional substitutable products based on Element Document 22-06-B0096.

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***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.*