

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

Document No.: 22-06-B0006-2-TS
Document Date: September 15, 2022

Reference Test Report No: 22-06-B0006-2

Manufacturer:	Siplast		Siplast System Identification:
	201 Bewicke Ave., Suite 208		
	N. Vancouver, BC, Canada		
	V7M 3M7		SIP AARS-018

SECTION 1.0: Roof System Summary:

"Siplast P20/30 with SFT AARS Adhered at 6 in o.c." – Adhesive Adhered Roofing System	
Roof Membrane – Cap Sheet:	Paradiene 30 FR
Roof Membrane – Base Sheet:	Paradiene 20
Cover Board:	Georgia-Pacific DensDeck® Prime
Insulation:	Paratherm
Vapour Retarder:	Siplast SA Vapour Retarder
Thermal Barrier	Georgia-Pacific 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	7.541 (157.5)	5.027 (105)

Measured Dynamic Wind Uplift Resistance: 7.541 kPa (157.5 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	SFT 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	SFT Adhesive, full coverage		
Substitutable Product(s)			
Manufacturer	Product Identification		
Siplast	Paradiene 20 HV	Paradiene 20 EG	Paradiene 20 HT
	Paradiene 20 PR	Paradiene 20 F	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	51 x 1220 x 1220 mm (2" 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	51 x 1220 x 1220 mm (2" 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 to substrate	
Substitutable Product(s)		
Manufacturer	Product Identification	
n/a	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	Mechanically attached
Fastening Rate	1 per 2.0 ft² (0.18 m²) – Sixteen (16) per 1220 x 2440 mm (4' x 8') board
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.

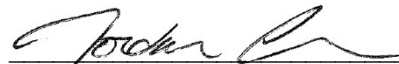
The Substitutable Products referenced in this Element Summary Report have been established for Siplast by PRI Construction Materials Technologies LLC engineering evaluation report "Dynamic Uplift Resistance (Dur) Evaluation of Siplast Roof Systems (Project No. 824a0005) dated April 18, 2022. In addition,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

Approved by:



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

Reported by:



Jordan Church, B. Tech., Ext. 11546
Operations 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.