

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

Document No.: 22-06-B0038-2-TS
Document Date: September 15, 2022

Reference Test Report No: 22-06-B0038-2

Manufacturer:	Siplast		Siplast System Identification:
	201 Bewicke Ave., Suite 208		
	N. Vancouver, BC, Canada		
	V7M 3M7		SIP PARS-023

SECTION 1.0: Roof System Summary:

“Paratch Hot Asphalt System with Fiberboard and MA ISO” – Partially Attached” Roofing System	
Roof Membrane – Cap Sheet:	Paratech Glass Cap TG
Roof Membrane – Base Sheet:	Paratech Glass Base
Support Panel:	Fiberboard
Insulation:	Paratherm
Insulation:	Paratherm
Vapour Retarder:	Siplast SA Vapor Retarder
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	5.387 (112.5)	3.591 (75)

Measured Dynamic Wind Uplift Resistance: 5.387 kPa (112.5 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	Paratech Glass Cap TG		
Product Size	Roll Width 1 m (39.4"), Roll Length, 10m (32.8), Thickness 3.5 mm (140 mils), Selvage Width 76 mm (3")		
Attachment Method	Heat Welded		
Substitutable Product(s)			
Manufacturer	Product Identification		
Siplast	Paradiene 30 FR TG	Paradiene 30 FR TG BW	Paradiene 30 HT FR TG
	Paradiene 30 HT FR TG BW	Paradiene 40 FR TG	Paradiene 40 FR TG BW
	Parafor 30 TG	Parafor 50 TG	Parafor 50 TG BW
	Paratech Glass Cap TG	Paradiene 30 FR TG	Paratech 180 Cap TG
	Paratech 180 Cap FR TG	Paratech 250 Cap TG	Paratech 250 Cap FR TG

Roof Membrane (Base Sheet)			
Tested Product	Paratech Glass Base		
Product Size	Roll Width 1 m (39.4"), Roll Length, 15 m (49.2'), Thickness 2.3 mm (91 mils), Selvage Width 76 mm (3")		
Attachment Method	Hot Asphalt Mopped		
Fastening Rate	Full Coverage, applied at rate of 25-30 gal/sq. (10 – 12 L/m²)		
Substitutable Product(s)			
Manufacturer	Product Identification		
Siplast	Paradiene 20 HV TG	Paradiene 20 EG TG	Paradiene 20 HT TG
	Paradiene 20 PR TG	Paradiene 20 TG	Paradiene 20 HT TG
	Paratech Glass Base TG	Paratech Glass Base 3.0 TG	Paratech 180 Base TG
	IREX 40		IREX HT

Cover Board	
Tested Product	Fiberboard
Product Size	6.4 x 1220 x 1220 mm (1/4" x 4' x 4')
Attachment Method	Hot Asphalt Mopped
Fastening Rate	Full Coverage, applied at rate of 25-30 gal/sq. (10 – 12 L/m ²)
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	Mechanically Fastened	
Fastening Rate	1 per 2.0 ft² (0.18 m²)	
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	Loose Laid	
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

Insulation (Top Layer) Securement	
Tested Product	Parafast Fastener (#12) with Parafast 76 mm (3") round metal plate
Fastening Rate	1 per 2.0 ft² (0.18 m²) - Sixteen (16) per 12.7 x 1220 x 2440 mm (1/2" x 4' x 8') board
Substitutable Product(s)	
Manufacturer	Product Identification
n/a	n/a

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.

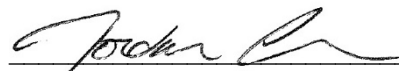
The Substitutable Products referenced in this Element Summary Report have been established for Siplast by PRI Construction Materials Technologies LLC engineering evaluation report "Dynamic Uplift Resistance (Dur) Evaluation of Siplast Roof Systems (Project No. 824a0005) dated April 18, 2022. In addition,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

Approved by:



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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.*

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