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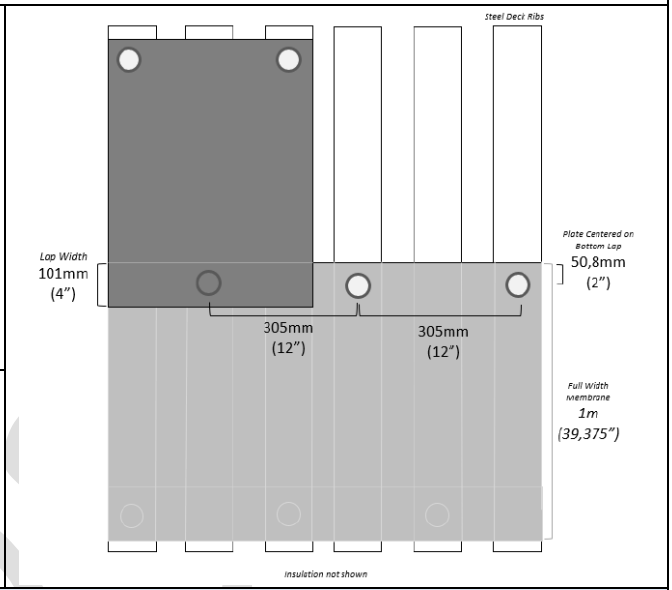
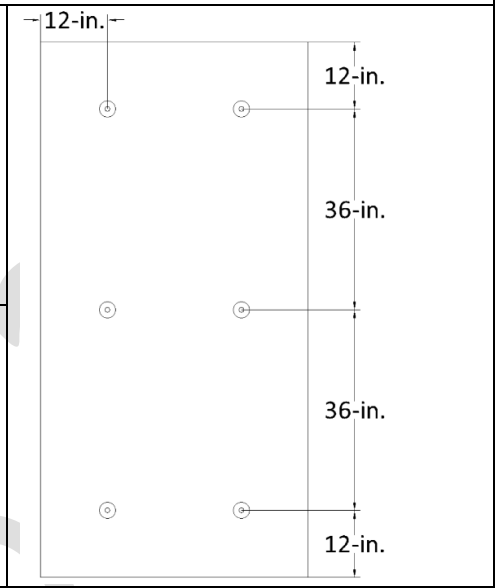
ENGINEER TEST CONSULT

ROOF SYSTEM ASSESSMENT REPORT DYNAMIC UPLIFT RESISTANCE PER CSA A123.21			
CUSTOMER:	Polyglass USA, Inc.	TEST DATE:	2016-08-17
DOCUMENT NO.	PLYG-MARS-1	PUBLICATION DATE:	2025-05-09
TEST PANEL NO.	PLYG-1	REVISION NO.	R2
SYSTEM TYPE:	D	REEVALUATION DATE:	2028-05-09

MECHANICALLY ATTACHED ROOFING SYSTEM (MARS) SUMMARY						
ROOFING SYSTEM SUMMARY:						
Cap Ply:	SBS modified bitumen, torch-applied					
Base Ply:	(Optional) SBS modified bitumen, torch-applied					
Base Sheet:	SBS modified bitumen, mechanically fixed					
Insulation:	1220 x 2438 x 38-mm (48 x 96 x 1.5-inch) polyisocyanurate foam insulation board, mechanically fixed					
Vapor Barrier:	Kraft paper, loose-laid					
Deck:	steel					
DYNAMIC UPLIFT RESISTANCE PER CSA A123.21:						
Sustained Test Value		**Design Value CSA A123.21:20 *(Test Value x 0.65)***		**Design Value CSA A123.21:14 *(Test Value ÷ 1.5)***		
kPa	**psf**	**kPa**	**psf**	**kPa**	**psf**	
7,2	-150	4,7	-98	4,8	-100	
PRODUCTS / APPLICATION:						
Cap Ply:	Description:	Membrane composed of a fiberglass, polyester or fiberglass/polyester composite reinforcement coated with SBS modified bitumen				
	Application:	Torch-applied				
	Eligible Products:	Elastoflex V G FR, Elastoflex S6 G, Elastoflex VP G, Elastoflex S6 G FR, Elastoflex VP G FR, Elastoshield TS G, Elastoshield TS G FR, Polyfresko G SBS or Polyfresko G SBS FR				
Base Ply (Optional):	Description:	Membrane composed of a fiberglass, polyester or fiberglass/polyester composite reinforcement coated with SBS modified bitumen				
	Application:	Torch-applied				
	Eligible Products:	Elastobase V, Elastoflex V, Elastoflex S6, Elastoflex VP, Elastoflex S6 HP or Elastoshield VP HT				
Base Sheet:	Description:	Membrane composed of a fiberglass/polyester composite reinforcement coated with SBS modified bitumen				
	Application:	Mechanically fixed				
	Eligible Products:	Elastoshield VP HT				

PRODUCTS/APPLICATION (CONTINUED):			
Base Sheet Fasteners:	Description:	Corrosion resistant screw-type roofing fasteners with steel stress plates	
	Fastening Method:	Fasteners installed through stress plates at the minimum 101-mm (4-inch) wide side laps, positioned to engage the top flange of the steel deck, and spaced maximum 304-mm (12-inch) o.c. Fastener rows encapsulated within the side laps by heat-weld or torch-sealing the subsequent membrane run thereto.	
	Fastener Density:	1 part per 0.27 m^2 (2.9 ft^2)	
	Eligible Products:	SFS Group:	Dekfast DF-#15-PH3 fastener with Dekfast PLT-O2-3/4-12B or Dekfast PLT-R-2-3/8-6B plate
		Altenloh, Brinck & Co. US:	Trufast #15 EHD Fastener with Trufast 2.4" Barbed Metal Seam Plate, Trufast 2.4" Scoop Seam Plate or Trufast 2.75" Barbed Metal Seam Plate
Insulation:	Description:	Polyisocyanurate foam insulation board laminated on both sides with fiber reinforced felt or coated glass facer	
	Application:	One or more layer(s) Bottom layer(s) loose-laid with staggered joints Top layer mechanically fixed	
	Thickness:	Minimum 38-mm (1.5-inch)	
	Eligible Products:	Polyglass:	Polytherm, Polytherm G, Polytherm H or Polytherm K

PRODUCTS/APPLICATION (CONTINUED):			
Insulation Fasteners:	Description:	Corrosion resistant screw-type roofing fasteners with steel stress plates	
	Fastening Method:	Fasteners installed through stress plates, positioned to engage the top flange of the steel deck; four (4) parts located 304-mm (12-inch o.c.) from each corner and two (2) parts at the centerline of the board length, 304-mm (12-inch) from each edge.	
	Fastening Rate:	1 part per 0.49 m^2 (5.3 ft^2) 6 parts per 1220 x 2438 (48 x 96-inch) board	
	Eligible Products:	SFS Group:	Dekfast DF-#12-PH3 fastener with Dekfast PLT-R-3 plate
		Altenloh, Brinck & Co. US:	Trufast #12 DP Fastener with Trufast 3" Metal Insulation Plate
Vapour Barrier:	Description:	Asphalt coated kraft paper	
	Application:	Loose-laid with sealed laps	
	Eligible Products:	SPAR-Marathon Vapour Barrier; laps sealed using SPAR-Marathon Vapour Barrier Adhesive	
Deck:	Tested Product:	Steel roof deck	

NOTES:	
Test Value and Design Value:	The "Test Value" noted herein reflects the ultimate passing test pressure recorded during testing. The "Design Value" herein reflects the "Test Value" multiplied by a resistance factor of 0.65 (same as "Test Value" divided by a safety factor of 1.5) The "Design Value" should meet or exceed the design pressure requirements of the project, as determined in accordance with the current National Building Code of Canada (NBC) requirements.
Equivalence of Other Products:	This report applies only to the products listed as "Eligible Products" herein.
Optional Components:	Components listed herein as "optional" may be removed from the roof system design with no adverse effect on system dynamic wind uplift performance.
As-Tested Deck:	Testing utilized 22 ga., Type B (6-inch deck module) steel deck meeting ASTM A653, A792, A1008 or CSSBI 10M standard and having a yield strength of 275 MPa (40-ksi). Alternate deck displaying equivalent strength and fastener-holding capacity (withdrawal resistance) may be specified at the discretion of the Designer of Record to the satisfaction of the Authority Having Jurisdiction.
Fastener Point-Load:	The base sheet fastener point-loads resisted during this test are: • Test Value: 1967 N (442 lbf) • Design Value: 1312 N (295 lbf)

RSAR SCOPE

Roof System Assessment Reports (RSAR) constitute a summary of allowable products and interfaces used in low-slope roof assemblies based testing in accordance with CSA A123.21 at our ISO/IEC 17025 accredited laboratory.

While RSAR's are reviewed and renewed each 3-years based primarily on report holder declaration, these are not Certification listings, and are not intended to state or imply ongoing quality control / surveillance activities by NEMO at the report holder's facilities.

NEMO ETC, LLC is not, in any way, the Designer of Record for any project on which these RSAR's, or previous versions thereof, is/was used for permitting or design guidance. RSAR's are not to be construed as representing any attributes not specifically listed, nor to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by NEMO ETC, LLC, express or implied, as to any finding or other matter in these RSAR's, or as to any product covered by the RSAR's.

NEMO ETC CREDENTIALS

TYPE	ENTITY	REFERENCE
ISO/IEC 17025 Accreditation	International Accreditation Service (IAS)	TL-689
TAS 301 Certification	Miami-Dade	21-0409.01
Third Party Test Data Program	UL, LLC	DA2862
Test Lab Listing	Roofing Contractors Association of British Columbia	RCABC Labs

REPORT HISTORY

DATE	EVENT	NOTES	AUTHORIZED BY:
2018-02-26	FINAL	None	RN
2021-02-19	REV1	Re-Validation Name change: Elastobase to Elastobase V Name change: Polyglass HT Base 650 to Elastoshield VP HT	RN
2025-01-08	DRAFT 1, REV2	Reformat per customer; for customer review	RN
2025-03-21	DRAFT 2, REV2	Add customer logo	RN
2025-04-02	DRAFT 3, REV2	Additional customer-directed edits	RN
2025-05-09	REV2	Additional customer-directed edits of Dynamic Uplift Resistance listing	RN

END OF REPORT