



Thermoplastic Single Ply and Multi-Ply Roofing Systems

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FLEX MF/R PLUS 45 ELVALOY® KEE ROOF SYSTEM **(39" , 78" , and 120" Wide, Reinforced, Thermoplastic Roof Membrane)**

Product Description

The Flex MF/R Plus 45 Elvaloy® KEE Roofing Membrane is a high-performance thermoplastic membrane designed for mechanically attached or adhered roofing applications. The Flex MF/R Plus 45 Elvaloy® KEE membrane is produced with DuPont Elvaloy® KEE and is a polyester reinforced roofing membrane with built in chemical, UV and fire resistance. The Flex MF/R Plus 45 Elvaloy® KEE membrane results in a highly reflective, low maintenance roof surface that saves the Building Owner energy and labor costs and helps to reduce pollution in the surrounding environment.

Features and Benefits

- Wider membrane saves in labor costs for installation: less seams to weld.
- Wider membrane saves in material costs: less fasteners and plates.
- Hot air welded seams are the strongest most reliable seams in the roofing industry.
- Chemical, Ozone and UV exposure do not affect surface pliability or functional integrity.
- Effectively tested to perform in high wind situations.
- Increased cold weather flexibility allows installation in below freezing temperatures.
- Available in .045" thick membranes.
- Tested assemblies meet or exceed FM Class 1-90 wind uplift requirements.
- Approved by Underwriters Laboratories in Class A fire rate roof systems.

Mechanically Attached Installations

The Flex MF/R Plus 45 Elvaloy® KEE membrane is ideal for use as a mechanically attached membrane for new construction and reroofing. Flex's MF/R Plus 45 Elvaloy® KEE membrane is lightweight just a few ounces per square foot making it ideal for reroofing projects where a tear off can be avoided. Flex has several fastener and plate options available to meet a wide range of wind uplift pressure requirements. The wider Flex MF/R Plus 45 Elvaloy® KEE membrane allows for a faster lower cost installation than other mechanically attached roof membrane systems.

Adhered Installations

The Flex MF/R Plus 45 Elvaloy® KEE Roofing Membrane can be installed with Flex Bonding Adhesive for a fully adhered installation. This system is ideal for installations with unusual or odd shaped contours. Fully adhered installations are the answer for design limitations on mechanical penetrations of the deck or for situations where increased wind uplift pressure requirements must be met.

PHYSICAL PROPERTIES

CHARACTERISTICS	TEST METHOD	PHYSICAL PROPERTIES
Color		white, tan, gray
Thickness	ASTM D751	.045"
Thickness over scrim	ASTM D751	.024"
Breaking Strength	ASTM D751	406 lbf/in
Tear Strength	ASTM D751	101 lbf
Elongation at break	ASTM D751	44 %
Fabric Adhesion	ASTM D751	18 lbf/in
Retention of Properties after Heat Aging	ASTM D3045	
Breaking Strength		100%
Elongation at Break		100 %
Low Temperature Bend	ASTM D2136	pass
Change in weight after water immersion	ASTM D471	1.5%
Factory Seam Strength	ASTM D751	459 lbf.
Lineal Dimensional change	ASTM D1204	0.3%
Hydrostatic Resistance	ASTM D751	pass
Static Puncture Resistance	ASTM D5602	pass
Dynamic Puncture Resistance	ASTM D5635	pass
Accelerated Weathering	ASTM G154	pass
Accelerated Weathering	ASTM G155	pass
Fungi Resistance	ASTM G 21	pass
Abrasion Test	ASTM D3389	pass
Solar Reflectivity	ASTM E903	.811 (white)
Emissivity	ASTM E903	.919 (white)
SRI	ASTM E903	109 (white)

Flex MF/R Plus 45 Elvaloy® KEE membrane is thermoplastic in nature and exceeds the requirements of ASTM D6754 standard specification for Elvaloy® KEE sheet roofing.

Elvaloy® is a registered trademark of DuPont.