



Thermoplastic Single Ply and Multi-Ply Roofing Systems

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

PRODUCT DESCRIPTION

The Flex MF/R Plus Elvaloy® KEE Roofing Membrane is a high-performance thermoplastic membrane designed for adhered, mechanically attached or ballasted roofing applications. The Flex MF/R Plus is produced with DuPont Elvaloy® KEE and is a white polyester reinforced roofing membrane with built in chemical, UV and fire resistance. The Flex MF/R Plus 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

- 78" wide membrane saves in labor costs for installation 20% less seams to weld.
- 78" wide membrane saves in material costs 20% 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.
- Energy Saving Reflective Roof Surface more in demand than ever before.
- Effectively tested to perform in high wind situations.
- Increased cold weather flexibility allows installation in below freezing temperatures.
- Available in .045", .060" and .080" thick membranes.

MECHANICALLY ATTACHED INSTALLATIONS

The Flex MF/R Plus is ideal for use as a mechanically attached membrane for new construction and reroofing. Flex's MF/R Plus 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 78" wide Flex MF/R Plus membrane allows for a faster lower cost installation than other mechanically attached roof membrane systems.

ADHERED INSTALLATIONS

The Flex MF/R Plus Elvaloy® KEE Roofing Membrane can be installed with Flex's 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.

APPROVALS

The Flex MF/R Plus Elvaloy® KEE Roofing Membrane exceeds the requirements of ASTM D4434 standard for thermoplastic sheet roofing. The Flex MF/R Plus Elvaloy® KEE Roofing Membrane meets or exceeds Factory Mutual's 1-90 wind uplift requirements in numerous adhered and mechanically attached roof applications and meets Underwriters Laboratories Class A fire rating.

PHYSICAL PROPERTIES

<u>Characteristics</u>	<u>Test Method</u>	<u>Physical Properties</u>
Color		White
Thickness	ASTM D751	.045", .060", .080" nominal
Weight		4.9 oz./ft ² , 6.1 oz./ft ² , 8.2 oz./ft ²
Breaking Strength (minimum, lbs/in.)	ASTM D751 (grab method)	300 lbs. x 300 lbs.
Seam Strength (minimum % of breaking strength)	ASTM D638	90%
Elongation @ Break	ASTM D751	17% x 19% -- 35% x 40%
Heat Aging	ASTM D3045	80% x 80%
Tear Strength	ASTM D751	100 lbs. x 100 lbs.
Low Temperature Bend	ASTM D2136	PASS (-40°F)
Permeance	ASTM D1204 (Procedure BW)	.003 Perms -- .055 Perms
Dimensional Change (maximum %)	ASTM D1204 (@ 176° F, 6 hours)	0.3%
Dimensional Change (maximum %)	ASTM D1204 (@ 212° F, 1 hour)	1.0%
Water Immersion	ASTM D570	1.0%
Hydrostatic Resistance (min., psi)	ASTM D751 (method D)	400 psi
Ozone Resistance	ASTM D1149	PASS
Accelerated Weathering (UV-B, 8 hr., @70°C, condensate, 4hr. @ 50°C)	ASTM G53	None
Emmaqua Test	ASTM E838	Pass (2.7 million Langleys)
Underwriters Laboratories		Class A
Factory Mutual		Class 1-90
Solar Reflectivity	ASTM E903	.822
Emissivity	ASTM C1371	.915
SRI	ASTM E1980	109

Flex MF/R Plus Elvaloy® KEE membrane is thermoplastic in nature and exceeds the requirements of ASTM D4434 standard specification for poly (vinyl chloride) sheet roofing.

WARRANTY

The Flex MF/R Plus Elvaloy® KEE Roofing Membrane may receive the manufacturers standard five (5) year or optional ten (10) year, fifteen (15) year or twenty (20) year guarantee of watertightness.

Elvaloy® KEE is a registered trademark of DuPont.