



## Thermoplastic Single Ply and Multi-Ply Roofing Systems

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### **FLEX MF/R 120 ELVALOY® KEE ROOF SYSTEM** **(10' WIDE REINFORCED THERMOPLASTIC ROOF MEMBRANE)**

#### **PRODUCT DESCRIPTION**

The Flex MF/R 120 Elvaloy® Roofing Membrane is a high-performance thermoplastic membrane designed for adhered, mechanically attached or ballasted roofing applications. The Flex MF/R 120 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 120 White Roofing Membrane provides 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**

- 10' wide membrane saves in labor costs for installation, 50% less seams to weld.
- 10' wide membrane saves in material costs, 50% 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", .080" thick membranes.

#### **MECHANICALLY ATTACHED INSTALLATIONS**

The Flex MF/R 120 is ideal for use as a mechanically attached membrane for new construction and reroofing. Flex's MF/R 120 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 fastening patterns available to meet a wide range of wind uplift pressure requirements. The 10' wide Flex MF/R 120 Membrane allows for a faster, lower cost installation than other mechanically attached roof membrane systems.

#### **ADHERED INSTALLATIONS**

The Flex MF/R 120 Elvaloy® 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 to design limitations on mechanical penetrations of the deck or for situations where increased wind uplift to pressure requirements must be met.

## **APPROVALS**

The Flex MF/R 120 Elvaloy® Roofing Membrane exceeds the requirements of ASTM D4434 standard for thermoplastic sheet roofing. The Flex MF/R 120 Elvaloy® Roofing Membrane meets Factory Mutual's 1-90 and 1-120 wind uplift requirements in numerous adhered and mechanically attached roof applications and meets Underwriters Laboratories Class A fire rating.

## **PHYSICAL PROPERTIES**

<b><u>Property</u></b>	<b><u>Test Procedure</u></b>	<b><u>Specification</u></b>
Color		White
Thickness	ASTM D751	.045", .060" or .080" nominal
Weight		4.9 oz./ft <sup>2</sup> -- 6.1 oz./ft <sup>2</sup>
Breaking Strength (minimum, lbs/in.)	ASTM D751 (grab method)	300 lbs. x 300 lbs.
Seam Strength (minimum % of breaking strength)	ASTM D-638	90%
Elongation @ Break	ASTM D751	17% x 19% -- 35% x 40%
Heat Aging	ASTM D3045	80% x 80%
Tear Strength	ASTM D-751	100 lbs. x 100 lbs.
Low Temperature Bend	ASTM D2136	PASS (-40°F)
Permeance (Procedure BW)	ASTM D-1204	.003 Perms -- .055 Perms
Dimensional Change (maximum %)	ASTM D-1204 (@ 176° F, 6 hours)	0.3%
Dimensional Change (maximum %)	ASTM D-1204 (@ 212° F, 1 hour)	1.0%
Water Immersion	ASTM D-570	1.0%
Hydrostatic Resistance (min., psi)	ASTM D-751 (method D)	400 psi
Ozone Resistance	ASTM D-1149	PASS
Accelerated Weathering (UV-B, 8 hr., @70°C, condensate, 4hr. @ 50°C)	ASTM G-53	None
Emmaqua Test	ASTM E-838	Pass (2.7 million Langleys)
Underwriters Laboratories		Class A
Factory Mutual		Class 1-90, 1-120
Solar Reflectivity	ASTM E903	.822
Emissivity	ASTM C1371	.915
SRI	ASTM E1980	109

Flex MF/R 120 Elvaloy® membrane is thermoplastic in nature and exceeds the requirements of ASTM D4434 standard specification for poly (vinyl chloride) sheet roofing.

## **WARRANTY**

The Flex FB 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® is a registered trademark of DuPont.