TremPly® KEE and KEE FB Single Ply Systems

A reinforced polyester knit fabric with a proprietary hybrid thermoplastic alloy coating

FEATURES

Elvaloy KEE flexibilizer

Full bond around fiber

Fleeceback and smooth

reinforcement

versions

BENEFITS

Superior flexibility, UV resistance and

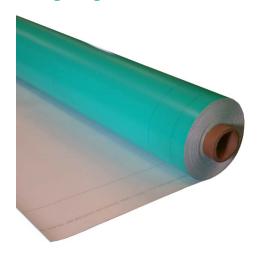
chemical resistance

Heavy duty reinforcement • Excellent tear strength and puncture resistance

• Maximum seam strength for long term

performance

• Multiple application methods to meet project specific needs



DESCRIPTION

TremPly® KEE and KEE FB (Fleeceback) Systems not only meet or exceed the minimum physical property requirements enumerated in ASTM D6754 Standard Specification for Ketone Ethylene Ester (KEE) based sheet roofing, but exceed the physical properties and performance characteristics of much thicker competitive products. TremPly KEE membranes are available in nominal 45 and 60 mil thickness; smooth and fleeceback versions; and in white, gray and tan which can all help an organization meet LEED requirements. All TremPly KEE Roofing Membranes are constructed using high tenacity/heavy weight yarns to create a base fabric reinforcement to impart superior puncture, tensile and tear resistance properties. The base polyester fabrics are primed with a unique and proprietary adhesive coat that lays the foundation to physically bond the KEE coatings to the "fiber" to maximize seam strength and overall membrane performance. TremPly KEE is coated to provide superior hot air welding characteristics, extreme UV resistance, broad chemical resistance and long-term flexibility and repairability for the installed roofing membrane system. TremPly KEE Roofing Systems have excellent tear, puncture, fungus, algae and flame resistance, making them among the most sustainable roofing systems available.

BASIC USES

TremPly KEE and KEE FB single ply roofing systems are designed to provide superior performance and exceptional value; the white, tan or gray surfaces absorb much less heat that a black roof, which can help lower a facility's energy use and improve its appearance. They are excellent choices for roof overlays, replacement and new construction alike.

APPLICATION

TremPly KEE Roofing Systems carry extensive FM Global and Underwriters Laboratories' approvals. TremPly KEE Roofing Systems can be installed by mechanically fastening or adhering the membrane bonding adhesive. TremPly KEE can also be installed in typical ballast configurations using conventional stone or paver ballast. Field seaming is accomplished by fusing the thermoplastic membrane with conventional hot air welding equipment.

APPROVED ATTACHMENT **METHODS** TremPly KEE is manufactured in 37" and 74" wide by 100' long rolls. KEE FB is manufactured in 72" wide by 80' long rolls.

	TREMPLY KEE	TREMPLY KEE FB
POWERply Endure BIO Adhesive	No	Yes
Tremply KEE FB Bonding Adhesive	No	Yes
Tremply KEE LV Bonding Adhesive	Yes	No
Tremply KEE WBII Bonding Adhesive	e No	Yes
Hot Asphalt	No	Yes
TremPLY KEE Plus Stress Plates	Yes	Yes

The application information provided in this data sheet serves as general guidance. Please refer to Tremco application guides and project specific specifications or consult with your local Tremco Roofing sales representative for project specific application requirements. Refer to the Safety Data Sheet (SDS) for material precautions.

PHYSICAL PROPERTIES

ENERGY ATTRIBUTES

MAINTENANCE

PRECAUTIONS

TECHNICAL SUPPORT

TremPly® KEE and KEE FB Single Ply Systemstems

PROPERTY	ASTM D6754	TREPLY KEE ANDKEE FB	
Thickness ASTM D 751 (inches)	.032	.045/.060	
Thickness over Fiber Optical method (inches)	.007	.014/.016	
Breaking Strength (MD/XMD) D 751 proc. B strip (lbf/in)	337	520/406	
Elongation at Break (MD/XMD) D 751 - strip	18	22/20	
Tear Strength (MD/XMD) ASTM D 751 proc. B. Tongue Tear (lbf)	76	125/145	
Linear Dimensional Change (MD/XMD) ASTM D 1204 max (%)	1.3	-0.6/1	
Fabric Adhesion D 751 min. (lb/in)	19	no peel	
Low Temperature Bend ASTM D 2136 (0f)	-30	-30	
Retention of Properties After Heat Aging			
Practice D 3045 - 1760f /56 days			
Breaking Strength min. ASTM D 751 proc. B. (lbf/in.)	90	90	
Elongation at break ASTM D 751 proc. B.	19/18	20/20	
Low Temperature Bend ASTM D 2136 (°F) ASTM D 751	-30	pass	
Change in Weight after Exposure in Water	+6.0	0.7	
D 471 1580f one side only, max. (%)			
Seam Strength D 751 Grab Method, min. (lbf)	440	800	
Hydrostatic Resistance (psi) ASTM D751	590	>1,000	
Static Puncture Resistance ASTM D 5602 (99 lbf)	pass	pass	
Dynamic Impact / Puncture Resistance ASTM D 5635 min. (J)	10	pass	
Accelerated Weathering Practice G 155 / 5,000 h xenon			
Cracking (7x magnification)	none	none	
Crazing (7x magnification)	none	none	
Accelerated Weathering Practice G 154 / 5,000 h UVA			
Cracking (7x magnification)	none	none	
Crazing (7x magnification)	none	none	
Fungi Resistance Practice G 21, 28 days Sustained Growth	no growth	none	
Abrasion D 3389 H-18 wheel 1,000 g load, (min. cycles)	1,500	>2,000	
PROPERTY	WHITE	GRAY	TAN
Solar Reflectance-DC6 White Initial ASTM C1549	0.87	0.69	0.72
Solar Reflectance (3 yr. Aged) ASTM C1549	0.71	0.61	0.63
Initial Thermal Emmittance ASTM C1371	0.85	0.89	0.88
Thermal Emmittance 3 yr Aged ASTM C1371	0.84	0.89	0.89
Solar Reflective Index (SRI) ASTM E1980	110	84	88
Solar Reflective Index (SRI) 3 yr aged ASTM E1980	86	73	76
LEED 2.2 Heat Island Effect (SRI> 78) SS Credit 7.2	1 credit	1 credit	1 credit

Your local Tremco Roofing sales representative can provide you with effective maintenance procedures which may vary, depending upon specific conditions. Periodic inspections, early repairs and preventative maintenance are all part of a sound roof program.

Users must read container labels and Safety Data Sheets for health and safety precautions prior to use.

Your local Tremco Roofing sales representative, working with the Technical Service Staff, can help analyze conditions and needs to develop recommendations for special applications.

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Roofing & Building Maintenance

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