



**1. Product Name**

GenFlex EPDM Single-Ply Roof Membranes

**2. Manufacturer**

GenFlex Roofing Systems  
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**3. Product Description**

**BASIC USE**

GenFlex EPDM Roofing Membranes consist of a flexible sheet made from ethylene-propylene-diene monomer (EPDM) intended for use as a single-ply roofing membrane on commercial, industrial and institutional buildings. The sheet may be non-reinforced (GenFlex EPDM II), fabric or scrim reinforced (GenFlex FRM), or include fire retardant ingredients (GenFlex AFR) that improve the membrane's fire resistant characteristics.

Additional system components may include insulation, seam and cover tapes, primers, seam and bonding adhesives, sealants, membrane flashings and other related roof accessories.

GenFlex requires all components of the roofing assembly to be products supplied by GenFlex Roofing Systems or approved by GenFlex.

GenFlex EPDM roofing membranes can be installed in fully adhered, mechanically attached or ballasted systems in either new or reroof applications.

**COMPOSITION & MATERIALS**

EPDM is an elastomeric membrane made from ethylene-propylene-diene monomer (EPDM) intended for use in single-ply roofing membranes exposed to the weather.

**COLOR** Black

**SIZES**

GenFlex non-reinforced EPDM is available in factory manufactured rolls in widths up to 50' (15.2 m) and lengths up to 100'

(30.5 m). GenFlex reinforced EPDM is available in widths up to 10' (3.0 m) and lengths up to 100' (30.5 m). All membranes are available in 45 and 60 mil (1.14 and 1.52 mm) thickness. GenFlex AFR membrane is available in thicknesses up to 90 mil (2.3 mm).

**WEIGHT**

45 mil membrane – 0.29 lb/ft<sup>2</sup> (1.4 kg/m<sup>2</sup>)  
 60 mil membrane – 0.40 lb/ft<sup>2</sup> (1.8 kg/m<sup>2</sup>)  
 90 mil membrane – 0.63 lb/ft<sup>2</sup> (2.8 kg/m<sup>2</sup>)

**INSTALLATION SYSTEMS**

Fully Adhered System

Ideal for roofs with unusual or odd-shaped contours, where mechanical penetration of the membrane is not desirable, yet exceptional wind performance is needed. Once the membrane is positioned over the substrate, the back of the membrane and the substrate are coated with GenFlex bonding adhesive, allowed to dry, carefully rolled back into position and broomed into place.

Mechanically Attached

(Bar-In-Seam System)

Provides exceptional strength and integrity on applications where 7.5' or 10' (2.3 or 3.0 m) wide GenFlex EPDM or FRM membrane is used.

Mechanically Attached

(Bar Cover Tape System)

Uses large sheets of GenFlex EPDM membrane – up to 50' x 100' (15.2 x 30.5 m) – for large, open roof areas and appropriate decks.

Ballasted System

Perfect for installations where speed and economy are primary considerations, and the substrate is capable of supporting the system's dead load. Slope must not exceed 2/12. Insulation and membrane are loose-laid with the membrane fastened only at perimeters and penetrations. Recommended ballast is ASTM #4 ballast, i.e. smooth, water-worn rocks.

**LIMITATIONS**

- GenFlex EPDM may be installed in environmentally acceptable conditions as specified in GenFlex current technical specifications.

- Only compatible materials furnished or approved by GenFlex may be used.
- The system may only be installed over GenFlex approved substrates.
- The system must be installed in accordance with GenFlex's current EPDM Technical Specifications.
- Consult GenFlex Roofing Systems for membrane compatibility with foreign chemicals.

**4. Technical Data**

**APPLICABLE STANDARDS**

American Society for Testing & Materials:

- ASTM C 1371 – *Emissivity*
- ASTM C 1549 – *Reflectivity*
- ASTM D 412 – *Rubber Properties in Tension*
- ASTM D 471 – *Rubber Property – Effect of Liquid*
- ASTM D 518 – *Rubber Deterioration – Surface Cracking*
- ASTM D 624 – *Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers*
- ASTM D 816 – *Factory Seam Strength*
- ASTM D1149 – *Rubber Deterioration – Surface Ozone Cracking in a Chamber*
- ASTM D 1204 – *Linear Dimensional Changes of Nonrigid Thermoplastic Sheet or Film at Elevated Temperature*
- ASTM D 2137 – *Rubber Property – Brittleness Point of Flexible Polymers and Coated Fabrics*
- ASTM D 1980 – *Solar Reflectance Index*

**APPROVALS**

Status of code approvals varies with roof construction used. The following and other agencies will provide approvals on GenFlex EPDM systems. See agency publications and manufacturer's current literature for up-to-date approvals.

- Building Officials and Code Administrators international (BOCA)
- Factory Mutual (FM)
- Underwriters Laboratories (UL)
- International Conference of Building Officials (ICBO)
- Southern Building Code Congress International (SBCCI)
- Metropolitan Dade County, Florida

**PHYSICAL/CHEMICAL PROPERTIES**

Refer to Table 1 for test properties.





GenFlex Roofing Systems

5. Installation

PREPARATORY WORK

The dead load capacity of the deck and structure must be sufficient to support the load of the stored roofing materials and installed roofing system. The deck must be designed and constructed to provide removal of all water within forty-eight (48) hours after a rainfall. Substrate must be smooth, level and clean. Loose gravel on existing roofs must be removed.

INSULATION INSTALLATION

Insulation securement must be to current Genflex Roofing Systems' Technical Specifications.

MEMBRANE INSTALLATION

Unroll and position the membrane over the approved substrate without stretching.

Overlap the membrane panels a minimum of 3" (76 mm), and allow the membrane to relax for thirty (30) minutes prior to seaming or flashing. Mark the bottom of the membrane 1/2" (13 mm) from the edge of the top membrane, and fold the top membrane back 12" to 15" (305 to 381 mm) in order to apply the primer and tape.

SEAM TAPE SPLICES

Refer to GenFlex's current system specifications and warranty requirements reference guide to determine where splicing membrane with adhesive is appropriate. Thoroughly mix GenFlex Primer. DO NOT THIN! A minimum of two (2) minutes of vigorous hand mixing with a wooden paint stirrer or its equivalent is required. All sources of ignition should

be eliminated; adequate ventilation should exist.

Clean all surfaces with a clean cotton rag, removing excess contamination prior to application of the primer.

With a scrub pad and handle, apply firm pressure, and use continuous back and forth strokes to apply GenFlex Primer to the membrane along the bonding area until no streaks or puddling occurs.

Allow GenFlex Primer to dry until slightly tacky to a dry finger touch.

Unroll seam tape along the marks on the bottom membrane for the entire length of the seam. Note: DO NOT REMOVE THE RELEASE PAPER FROM THE SEAM TAPE AT THIS TIME.

With the release paper still on the tape, hand-roll the entire strip of seam tape with a Teflon coated or hard rubber roller. Assure adhesion of the tape to the primed surface of the membrane.

Allow the top membrane to fall freely onto the bottom membrane. Pull the release paper from the tape away from the seam at a 45° angle, ensuring contact first by brushing your hand across the top membrane at a right angle. Hand-roll the entire length of the completed seam.

All caulking details will be completed per standard specifications with GenFlex Edge Caulk. Apply a continuous "high profile" bead of edge caulk at field seam intersections, Cover Tape end laps, and edge metal joints.

Important: GenFlex T-Joint Covers are required over all intersections where multiple layers of EPDM field membranes intersect.

SPLICES WITH ADHESIVE

Using a clean cotton rag saturated with GenFlex Cleaner, thoroughly clean an area on both sheets at least 4" (102 mm) wide where the adhesive will be applied. Remove all visible talc, and maintain surfaces free from all moisture, oil, and other contaminants. Discard rags that become dirty, and replace with new rags to assure proper cleaning. Proper cleaning has been achieved when the membrane surface is dark grey in color with no evidence of streaks or discoloration. (Note: Additional cleaning will be needed at factory seams). Allow the cleaned membrane to dry completely.

TABLE 1 PHYSICAL PROPERTIES OF GENFLEX EPDM MEMBRANE

Property	Test method	GenFlex EPDM
		Typical Value
Tensile Strength Before Aging	ASTM D 412	1425 psi (9.8 MPa)
Tensile Strength After Aging	ASTM D 412	1415 psi (9.7 MPa)
Elongation Before Aging	ASTM D 412	450%
Elongation After Aging	ASTM D 412	290%
Tear Resistance Before Aging	ASTM D 624	200 lb/in (35 KN/m)
Tear Resistance After Aging	ASTM D 624	181 lb/in (31.5 KN/m)
Dimensional Stability After Aging	ASTM D1204	-0.7%
Aging = 28 days at 240 °F (116 °C)		
Brittleness Temperature	ASTM D 2137	-63 °F (-53 °C)
Ozone Resistance, No Cracks	ASTM D 1149	Pass
Tensile set, max %	ASTM D 412	10%
Water Absorption – max mass	ASTM D 471	+1.8%
150 °F (62.6 °C) 7 days		
Factory Seam Strength	ASTM D 816	Sheet failure
Weathering Resistance – Visual Inspection	ASTM D 518	Pass
Weathering Resistance – PRFSE. min	ASTM D 518	30%
Weathering Resistance – Elongation, ultimate, min	ASTM D 518	200%
Reflectivity	ASTM C 1549	6%
Emissivity	ASTM C 1371	0.87% (Black)
Solar Reflectance Index	ASTM D 1980	0
Recycled Content – Post Consumer	—	0%
Recycled Content – Post Industrial	—	0%
Manufacturing Locations	—	Prescott, AR Kingstree, SC



Stir GenFlex GenSplice Adhesive thoroughly to achieve a uniform mix with no marbling evident before using. DO NOT THIN! Adhesive may be applied with a 3" (76 mm) or 4" (102 mm) wide by 1/2" (12.7 mm) thick solvent resistant paint brush or medium nap roller (minimum 3/8" (9.5 mm)). For brush application, DO NOT CUT brush; use a back and forth conventional painting stroke. Apply an even coat of adhesive to each membrane surface to be spliced. Avoid globs and puddles.

Allow adhesive to dry until slightly tacky to a dry finger touch. As you are touching the adhesive, push straight down to check for stringing; also push forward on the adhesive at an angle to ensure that the adhesive is ready throughout its thickness. If either motion exposes wet or stringy adhesive when the finger is lifted, then it is not ready for mating, and the seam should not be closed. Flash-off time will vary depending on ambient air conditions.

Once the adhesive has dried properly, roll the top membrane back on to the bottom membrane, and allow it to fall freely into place without stretching. Immediately apply pressure to bring the bonding surfaces into complete contact.

Using a Teflon coated or hard rubber roller, hand-roll the entire seam area to ensure good contact between the membranes, first at a right angle toward the outer edge and then along the length of the splice.

At the end of the workday, using a clean rag saturated with GenFlex Cleaner, thoroughly clean an area on both sheets at least 2" (51 mm) each way from the edge of the splice. Apply GenFlex Edge Caulk to ensure a water tight seal. Use a "high profile" bead of caulk along the entire edge of the splice. Ensure bead covers factory seams. DO NOT SCREED!

Important: GenFlex T-Joint Covers are required over all intersections where multiple layers of EPDM field membranes intersect.

#### FLASHING AND ATTACHMENTS

Membrane must be attached to roof deck at perimeter of each roof level, curb flashing, skylight, expansion joint and roof penetration in accordance with GenFlex EPDM details. Perimeter flashing and

flashing around vents, skylights and roof projections must be GenFlex Flashing adhered with GenFlex Bonding Adhesive, using the longest pieces practical in accordance with GenFlex details.

#### 6. Availability & Cost

##### AVAILABILITY

GenFlex products are made available nationwide through a network of GenFlex Distributors.

##### COST

For cost information, please contact the nearest GenFlex Distributor or GenFlex Roofing Systems.

#### 7. Warranty

- Projects requiring roofing system warranties must be installed by a GenFlex licensed contractor.
- GenFlex projects must be inspected by a GenFlex representative to be eligible for a GenFlex roofing system warranty.
- GenFlex offers limited membrane only warranties, which are available for residential and commercial projects. These warranties may be obtained by any installer, and an inspection by a GenFlex representative is not done.
- Sample warranties are available from the manufacturer upon request.
- Components must be supplied by or approved by GenFlex.
- Warranty covers GenFlex-supplied materials only.
- Limitations in Part 3, Product Description, are required for warranty.

#### 8. Maintenance

Periodic inspection of the roof system and cleaning of drains is recommended. This will allow for proper water runoff and avoid overloading the roof with ponded water. Regular cleaning must be done in areas where contaminants potentially harmful to the roof system may accumulate, i.e., oil, grease, Freon, acids and solvents. Inform all tradespeople servicing the roof equipment that this is a single-ply roof and that they should proceed accordingly. If there is to be roof traffic for any reason, GenFlex EPDM walkway pads should be installed. Contact GenFlex Roofing Systems in writing for

approval before making alterations on, adjacent to, or through the roof system.

#### 9. Technical Services

GenFlex technical personnel are available to answer telephone questions or approve details. Refer to manufacturer's contact information referenced in section 2.0 for contact information. GenFlex Technical Specifications are available at [www.genflex.com](http://www.genflex.com).

#### 10. Filing Systems

- Architects' First Source for Products
- Sweet's Catalog Files
- SweetSource
- Additional product information is available from the manufacturer.