



1. Product Name

GenFlex EPDM Single-Ply Roof Membrane

2. Manufacturer

GenFlex Roofing Systems

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3. Product Description

BASIC USE

GenFlex EPDM roofing membranes are designed for use on commercial, industrial and institutional buildings. The membranes are available unreinforced as GenFlex EPDM, and reinforced as GenFlex FRM.

Additional system components include insulation, seam and cover tapes, seam adhesives, bonding adhesive, sealants, membrane flashing and roof accessories.

GenFlex requires components to be products of GenFlex Roofing Systems or approved by GenFlex.

A GenFlex EPDM System can be installed ballasted, fully adhered or mechanically fastened for either new or reroof applications. The GenFlex FRM reinforced membrane installs using the mechanical attachment or fully adhered system.

COMPOSITION & MATERIALS

Ethylene propylene diene monomer (EPDM) elastomeric membrane; polyester reinforcing fabric in FRM membrane.

COLOR Black

SIZES

GenFlex EPDM is available in factory fabricated rolls in widths up to 50' (15.2 m) as determined by system type and/or job conditions; GenFlex FRM is available in 7.5' and 10' (2.3 and 3.0 m) roll widths; roll lengths are up to 100' (30.5 m). Both membranes are available in 45 and 60 mil (1.1 and 1.5 mm) thicknesses.

WEIGHT

- 45 mil membrane - .29 psf (1.4 kg/m²)
- 60 mil membrane - .38 psf (1.9 kg/m²)
- Ballast - Ballasted system minimum 10 psf (48.9 kg/m²); additional where required by manufacturer

INSTALLATION SYSTEMS

Fully Adhered System

Installs quickly with no mechanical penetration of the membrane required. Smooth appearing system is particularly useful where roof surface is visible. Seams are adhered using Seam Tape or Seam Adhesive.

Bar Cover Tape System

Used where roof is subject to extensive thermal variance or high wind conditions. Large sheet size minimizes seams and speeds installation. Continuous metal bars are spaced 6' or 7' (1.8 or 2.1 m) apart in the field of the roof and fastened 12" (305 mm) o.c., then covered with Cover Tape.

Bar-In-Seam System

Designed for applications where use of 6'5" or 7'5" (2.0 or 2.3 m) sheets of membrane is practical. Seam overlap is increased to 7" (178 mm) with a continuous metal bar fastening the edge of the lower sheet and concealed by the adhered edge of the overlapping sheet, providing a neat appearing roof.

FRM System

Suited for high wind level installations, structural movement conditions, and exposure to higher UV and ozone exposure. FRM can be mechanically attached using seam plates or metal bars along the edge of 7.5' or 10' (2.3 or 3.0 m) sheets, then covering the fasteners with the seamed overlapping sheet.

BALLASTED SYSTEM

Economical and fast installation on structures able to support system weight. Maximum slope 2 in 12. Insulation and membrane are loose laid with membrane fastened at perimeter. System has minimal seams with large membrane sheets. Ballast is smooth, rounded, washed river rock, 3/4" - 1 1/2" (19 - 38 mm).

LIMITATIONS

- See Part 7. Warranty for warranty limitations.
- GenFlex EPDM may only be installed under environmental conditions specified by the manufacturer.
- 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 the *GenFlex EPDM Specifications Manual*.
- GenFlex EPDM may only be installed by

GenFlex authorized contractors.

- Consult GenFlex Roofing Systems for membrane compatibility with acids, chemicals, solvents and oils.

4. Technical Data

APPLICABLE STANDARDS

American Society for Testing & Materials:

- ASTM D412 - *Rubber Properties in Tension*
- ASTM D413 - *Rubber Property-Adhesion to Flexible Substrate*
- ASTM D471 - *Rubber Property - Effect of Liquid*
- ASTM D518 - *Rubber Deterioration - Surface Cracking*
- ASTM D573 - *Rubber Deterioration in an Air Oven*
- ASTM D624 - *Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers*
- ASTM D751 - *Coated Fabrics*
- ASTM D746 - *Brittleness Temperature of Plastics and Elastomers by Impact*
- ASTM D816 - *Rubber Cements*
- ASTM D1149 - *Rubber Deterioration-Surface Ozone Cracking in a Chamber*
- ASTM D1204 - *Linear Dimensional Changes of Nonrigid Thermoplastic Sheet or Film at Elevated Temperature*
- ASTM D2137 - *Rubber Property - Brittleness Point of Flexible Polymers and Coated Fabrics*
- ASTM E96 - *Water Vapor Transmission of Materials*
- ASTM G26 - *Practice for operating light - Exposure Apparatus (Xenon-Arc Type) with and without water for Exposure of Nonmetallic Materials*

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 literature.

- Building Officials and Code Administrators International (BOCA)
- Factory Mutual - I-60, I-90 wind uplift classifications
- International Conference of Building Officials (ICBO)
- Metropolitan Dade County, Florida
- Southern Building Code Congress International (SBCCI)
- Underwriters Laboratories Inc. - (ULI) Classification, hourly rating

PHYSICAL/CHEMICAL PROPERTIES

Refer to Table 1 for test properties.



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5. Installation**PREPARATORY WORK**

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

INSULATION INSTALLATION

Insulation fastening must be to GenFlex Roofing Systems specifications.

MEMBRANE INSTALLATION

Position membrane over approved substrate without stretching. Lap edges minimum 3" (76 mm); allow membrane to relax for 1/2 hour prior to splicing or flashing.

SPLICES WITH SEAM TAPE

Clean seams with Splice Cleaner to remove visible talc and other contaminants. Apply even coat of GenFlex Primer to both top and bottom surfaces of the membrane which will come in contact with seam tape. Allow to dry completely.

Unroll seam tape along full length of seam; leave backing paper in place. Hand roll tape, ensuring good contact with membrane. Unpeel paper backing from the side of tape toward the top sheet. Allow top membrane to fall freely onto seam tape. Avoid fish mouths. Do not roll seam immediately. Instead, first ensure contact to seam tape by brushing hand across seam at a right angle along length of seam.

Then hand roll entire length of seam, ensuring complete contact between membrane and seam tape.

Important: GenFlex T-joint Covers are required over all intersections where multiple layers of EPDM field membrane – three or more – come together.

SPLICES WITH ADHESIVE

Clean seams with GenFlex Splice Cleaner to remove talc and other contaminants. For G-400 Seam Adhesive application, DO NOT THIN ADHESIVE. Apply even coat of adhesive to each bonding surface. Allow adhesive to dry to a finger push and touch test. Allow top membrane to fall freely onto bottom membrane without stretching. Immediately apply pressure to bring bonding surfaces into complete contact. Hand roll entire splice with a rubber or teflon roller.

Important: Clean area on both sheets at least 2" (51 mm) each way from edge of splice. Lay down a High Profile bead of edge caulk along entire length of splice. Ensure that bead covers the step down edge; DO NOT TROWEL. All splices must be caulked before end of day.

Important: GenFlex T-joint Covers are required over all intersections where multiple layers of EPDM field membrane (3 or more) come together.

FLASHINGS 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**

Available nationwide through a network of distributors and agents for sale to authorized GenFlex Roofing Systems applicators.

COST

For cost information contact the nearest distributor or agent, or contact GenFlex.

7. Warranty

- GenFlex projects must be inspected by a GenFlex representative to be eligible for a GenFlex warranty.
- 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 run-off 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 it is a single-ply roof and that they should proceed accordingly. If there is to be roof traffic for any reason, GenFlex EPDM walkways 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

For technical questions, contact GenFlex. Technical personnel are available in-house to answer telephone questions or approve details. The GenFlex EPDM Specifications Manual is available on request for specifiers and roofing contractors.

10. Filing Systems

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

TABLE 1 PHYSICAL PROPERTIES OF GENFLEX EPDM MEMBRANE

Property	Test method	GenFlex EPDM Typical Value
Tensile strength before aging	ASTM D412	1500 psi (10.4 MPa)
Tensile strength after aging	ASTM D412	1650 psi (11.4 MPa)
Elongation before aging	ASTM D412	425%
Elongation after aging	ASTM D412	450%
Tear resistance	ASTM D624 Die C	275 lb/in (48.1 KN/m)
Dimensional stability after aging Aging = 7 days at 240°F (116°C)	ASTM D1204	1%
Brittleness temperature	ASTM D746	-67°F (-19°C)
Ozone resistance, 7 days at 100 pphm, 104°F (40°C) 50% Ext.	ASTM D1149	No cracks at 7 x Mag
Water absorption - 7 days at 158°F (70°C)	ASTM D471	1%
Permanent set at break	ASTM D412	10% Max.
Permeability, 24 hours	ASTM E96 Proc. A	1.8 g/m ²