

# TECHNICAL INFORMATION SHEET

## GeoGard™ EPDM Membrane

Item Description  
Geomembrane

Item Number  
Various



### Product Information

#### Description:

GeoGard EPDM Membrane is a cured single-ply geomembrane designed to meet the tolerances of ASTM D7465. It is fish and plant friendly.

#### Method of Application:

GeoGard EPDM Membrane must be installed in accordance with current Firestone Specialty Products specifications and details.

#### Storage:

- Store away from sources of punctures and physical damage.
- Store away from ignition sources as GeoGard EPDM Membrane will burn when exposed to open flame.

#### Preparation of Substrates:

1. Substrates must be clean, dry, smooth and free of sharp edges, fines, loose or foreign materials, oil, grease, and other materials that may damage the geomembrane.
2. All roughened surfaces that can damage the geomembrane shall be repaired as specified to offer a smooth substrate.
3. All substrate voids greater than 6.3 mm (0.25") wide shall be properly filled with an acceptable fill material.

#### Precautions:

1. Take care when moving, transporting, handling, etc. to avoid sources of punctures and physical damage.
2. Isolate waste products, such as petroleum products, greases, oils (mineral and vegetable) and animal fats from the geomembrane. Contact Firestone Specialty Products for specific recommendations.
3. Refer to Safety Data Sheets (SDS) for safety information.

#### LEED® Information:

Post Consumer Recycled Content: 0%

Post Industrial Recycled Content: 0%

Manufacturing Location: Prescott, AR

**NOTE:** LEED® is a registered trademark of the U.S. Green Building Council.

#### Packaging:

Thickness: 1.14 mm (0.045")      Weight: 1.32 kg/m<sup>2</sup> (0.27 lb/ft<sup>2</sup>)

Thickness: 1.52 mm (0.060")      Weight: 1.76 kg/m<sup>2</sup> (0.36 lb/ft<sup>2</sup>)

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## GeoGard™ EPDM Membrane

### Typical Properties – 1.14 mm (0.045") EPDM Geomembrane

Property	Test Method	Units	ASTM D-7465	
			SI	Eng
Specific Gravity:	ASTM D-792	gm/cc	1.1	1.1
Unit Weight:	ASTM D-751	kg/m (lb/ft)	1.4	.29
Thickness, Type 1:	ASTM D-412	mm (in)	1.02 +10/-10%	.045 +10/-10%
Tensile Strength, Die C min:	ASTM D-412	MPa (psi)	9.0	1305
Ultimate Elongation, Die C min:	ASTM D-412	%	300	300
Tear Resistance, Die C:	ASTM D-624	kN/m (lbf/in)	26.27	150
Puncture Resistance:	ASTM D-4833	N (lbs)	133	30
Shore A Durometer:	ASTM D-2240	---	65-10	65-10
Resistance to Ozone: 7 days/100 @ 37.8 °C (150 °F) 50% ext.	ASTM D-1149	---	No Cracks	No Cracks
Multiaxial Elongation:	ASTM D-5617	%	100	100
Oven Aging: At 116 °C (240 °F) for 670 hours	ASTM D-573	---	---	---
Tensile strength Die C:	ASTM D-412	MPa (psi)	8.3	1205
Ultimate elongation, Die C:	ASTM D-412	%	200	200
Tear Resistance, Die C:	ASTM D-624	kN/m (lbf/in)	21.9	125
Xenon Arc: for 5040 kJ/(m².nm) @ 340 nm @ 80 °C	ASTM G-155/G-151	---	---	---
Visual Inspection 7X No cracks or crazing bent loop @10% strain	ASTM D-518	---	pass	pass
Brittleness Point:	ASTM D-2137	degrees	-45 °C	-49 °F
Water Resistance: Weight after immersion 166 hrs @ 70 °C (158 °F)	ASTM D-471	%	+8,-2	+8,-2
Water Vapor Permeability (max.):	ASTM E-96	Perm-mils	2.0	2.0
Linear Dimensional Change, max:	ASTM D-1204	%	+/- 1.0	+/- 1.0
Chronic Toxicity Screening:	EPA/600/4-89/ 001 ASTM E-729	Method 1000.0	passes passes	passes passes

**NOTE:** Certified GeoGard EPDM Membrane production materials are special order items requiring a minimum of two weeks as production lead-time

**NOTE:** GeoGard EPDM Membrane meets or exceeds the minimum requirements set forth by ASTM D-7465 for Type I Non-reinforced geomembrane.

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## GeoGard™ EPDM Membrane

### Typical Properties – 1.52 mm (0.060") EPDM Geomembrane

Property	Test Method	Units	ASTM D-7465	
			SI	Eng
Specific Gravity:	ASTM D-792	gm/cc	1.1	1.1
Unit Weight:	ASTM D-751	kg/m (lb/ft)	1.8	.40
Thickness, Type 1:	ASTM D-412	mm (in)	1.52 +10/-10%	.060 +10/-10%
Tensile Strength, Die C min:	ASTM D-412	MPa (psi)	9.0	1305
Ultimate Elongation, Die C min:	ASTM D-412	%	300	300
Tear Resistance, Die C:	ASTM D-624	kN/m (lbf/in)	40.28	230
Puncture Resistance:	ASTM D-4833	N (lbs)	181.56	43
Shore A Durometer:	ASTM D-2240	---	65-10	65-10
Resistance to Ozone: 7 days/100 @ 37.8 °C (150 °F) 50% ext.	ASTM D-1149	---	No Cracks	No Cracks
Multiaxial Elongation:	ASTM D-5617	%	100	100
Oven Aging: At 116 °C (240 °F) for 670 hours	ASTM D-573	---	---	---
Tensile strength Die C:	ASTM D-412	MPa (psi)	8.3	1205
Ultimate elongation, Die C:	ASTM D-412	%	200	200
Tear Resistance, Die C:	ASTM D-624	kN/m (lbf/in)	37.32	213
Xenon Arc: for 5040 kJ/(m².nm) @ 340 nm @ 80 °C	ASTM G-155/G-151	---	---	---
Visual Inspection 7X No cracks or crazing bent loop @10% strain	ASTM D-518	---	pass	pass
Brittleness Point:	ASTM D-2137	degrees	-45 °C	-49 °F
Water Resistance: Weight after immersion 166 hrs @ 70 °C (158 °F)	ASTM D-471	%	+8,-2	+8,-2
Water Vapor Permeability (max.):	ASTM E-96	Perm-mils	2.0	2.0
Linear Dimensional Change, max:	ASTM D-1204	%	+/- 1.0	+/- 1.0
Chronic Toxicity Screening:	EPA/600/4-89/ 001 ASTM E-729	Method 1000.0	passes passes	passes passes

**NOTE:** GeoGard EPDM Membrane production materials are special order items requiring a minimum of two weeks as production lead-time

**NOTE:** GeoGard EPDM Membrane meets or exceeds the minimum requirements set forth by ASTM D-7465 for Type I Non-reinforced geomembrane.

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## GeoGard™ EPDM Membrane

### Panel Sizes – 1.14 mm (0.045") Thickness

Part Number	Dimensions		Packaging	Coverage		Typ. Max. Weight	
	SI Units (m)	Eng Units (ft)		SI Units (m²)	Eng Units (ft²)	SI Units (kg)	Eng Units (lb)
W56GM41010	3.05 x 30.48	10 x 100	Roll	92.90	1,000	155	342
W56GM41015	3.05 x 45.72	10 x 150	Roll	139.35	1,500	233	513
W56GM41020	3.05 x 60.96	10 x 200	Roll	185.81	2,000	310	684
W56GM42010	6.10 x 30.48	20 x 100	Roll	185.81	2,000	310	684
W56GM42015	6.10 x 45.72	20 x 150	Roll	278.71	3,000	466	1027
W56GM42510	7.62 x 30.48	25 x 100	Roll	232.26	2,500	388	856
W56GM42520	7.62 x 60.96	25 x 200	Roll	464.52	5,000	776	1711
W56GM43010	9.14 x 30.48	30 x 100	Roll	278.71	3,000	466	1027
W56GM43015	9.14 x 45.72	30 x 150	Roll	418.06	4,500	698	1540
W56GM43020	9.14 x 60.96	30 x 200	Roll	557.42	6,000	931	2053
W56GM44010	12.19 x 30.48	40 x 100	Roll	371.61	4,000	621	1369
W56GM44015	12.19 x 45.72	40 x 150	Roll	557.42	6,000	931	2053
W56GM44020	12.19 x 60.96	40 x 200	Roll	743.22	8,000	1242	2738
W56GM45010	15.24 x 30.48	50 x 100	Roll	464.52	5,000	776	1711
W56GM45015	15.24 x 45.72	50 x 150	Roll	696.77	7,500	1164	2567
W56GM45020	15.24 x 60.96	50 x 200	Roll	929.03	10,000	1429	3150

### Panel Sizes – 1.52 mm (0.060") Thickness

Part Number	Dimensions		Packaging	Coverage		Typ. Max. Weight	
	SI Units (m)	Eng Units (ft)		SI Units (m²)	Eng Units (ft²)	SI Units (kg)	Eng Units (lb)
W56GM61010	3.05 x 30.48	10 x 100	Roll	92.90	1,000	214	472
W56GM61015	3.05 x 45.72	10 x 150	Roll	139.35	1,500	321	708
W56GM62010	6.10 x 30.48	20 x 100	Roll	185.81	2,000	428	944
W56GM62015	6.10 x 45.72	20 x 150	Roll	278.71	3,000	642	1416
W56GM65010	15.24 x 30.48	50 x 100	Roll	464.52	5,000	1070	2360
W56GM65015	15.24 x 45.72	50 x 150	Roll	696.77	7,500	1606	3540
W56GM65020	15.24 x 60.96	50 x 200	Roll	929.03	10,000	2140	4720

Please contact Firestone Building Product Geomembrane Sales Department at 1-888-264-1735 for further information.

*This sheet is meant to highlight Firestone products and specifications and is subject to change without notice. Firestone takes responsibility for furnishing quality materials which meet published Firestone product specifications or other technical documents, subject to normal roof manufacturing tolerances. Neither Firestone nor its representatives practice architecture. Firestone offers no opinion on and expressly disclaims any responsibility for the soundness of any structure. Firestone accepts no liability for structural failure or resultant damages. Consult a competent structural engineer prior to installation if the structural soundness or structural ability to properly support a planned installation is in question. No Firestone representative is authorized to vary this disclaimer.*