

Technical Information Sheet

Firestone GeoGard™ EPDM (1.1 mm)

1. Description

The Firestone GeoGard EPDM 1.1 mm (.045") liner is a cured single-ply synthetic rubber membrane made of ethylene-propylene-diene terpolymer (EPDM). It is available in a variety of panel sizes. Depending on the dimensions of the liner, the waterproofing surface may be seamless (up to 930 m²). In other situations, seams can be made using a self-adhesive tape.



2. Preparation

Product: allow the membrane to relax for approximately 30 minutes before splicing.

Substrate: the substrate needs to be smooth, dry and free of sharp objects, oil, grease and other materials that may damage the membrane.

3. Application

Install the Firestone GeoGard EPDM in accordance with current specifications and details.

4. Coverage

The dimensions of the membrane are calculated to cover the base of the reservoir, slopes and anchor trenches, including seam overlaps.

5. Characteristics

The Firestone GeoGard EPDM is a rubber material with the following properties:

Physical	<ul style="list-style-type: none"> ● Elastomeric membrane with a good combination of high elasticity and tensile strength ● Retains its flexibility at low temperature (-45°C) ● Resists to temperature shocks up to 130°C ● Excellent resistance to alkali rains ● Excellent resistance to UV radiation and ozone concentration ● Contact with some kind of oils, petroleum products, hot bitumen and grease must be avoided
Technical	<ul style="list-style-type: none"> ● Base: synthetic rubber ● Color: black ● Solvents: none ● Solids (%): 100 ● State: cured

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6. Technical specifications

Physical properties	Test method	Declared value	Tolerance	Unit
Mass per unit area	EN 1849-2	1288	± 5%	g/m ²
Tensile strength (MD/CD)	EN 12311-2	9	-1	N/mm ²
Elongation without yield point (MD/CD)	EN 12311-2	≥ 300		%
Dimensional stability	EN 1107-2	≤ 0.5		%
Flexibility at low temperature	EN 495-5	≤ -45		°C
Resistance to static puncture	EN ISO 12236	0.7	-0.1	kN
Distance of the plunger before puncture	EN ISO 12236	110	-5%	mm
Liquid tightness under high pressure application (4 bar = 40 m depth)	EN 1928:2000 (B)	Watertight		
Water permeability (liquid tightness)	EN 14150	3.0 10 ⁻⁶	± 10 ⁻⁶	m ³ m ² /d
Methane permeability (gas tightness)	ASTM D1434	2.25 10 ⁻³		
Durability - weathering (25y)	EN 12224	Pass		
Durability - oxidation	EN 14575	Pass		
Friction angle	EN ISO 12957-2	27.5	± 1	°
Resistance to root penetration	CEN/TS 14416	Pass		

7. Precautions

Take care when moving, transporting or handling to avoid sources of punctures and physical damage. Isolate waste products, such as petroleum products, greases, oils (mineral and vegetable) and animal fats from Firestone GeoGard EPDM.