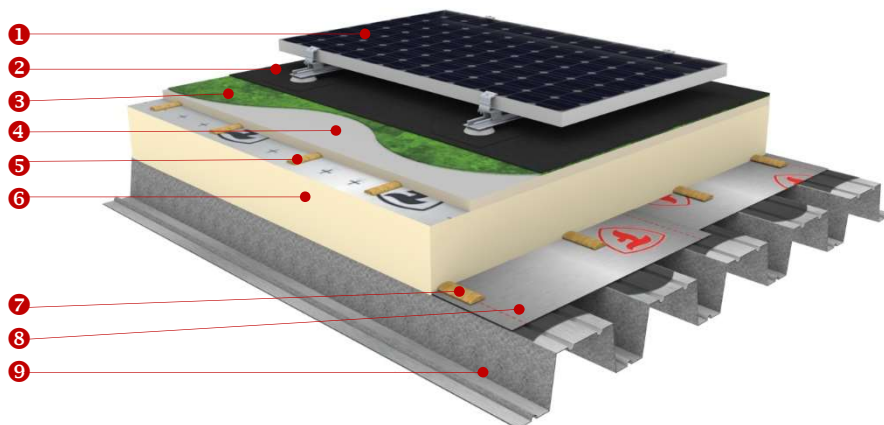




QUICK SPEC

RubberGard™ EPDM Single-Ply Roofing System

PHOTOVOLTAIC ROOF



Firestone's RubberGard™ EPDM membrane is compatible with all types of photovoltaic installations, thanks to their high temperature resistance, wear and tear resistance and exceptional life-time expectancy.

The profiled steel deck (min. 0.75mm thick) ⑨ is laid to falls designed to achieve a minimum finished slope as per local requirement to encourage efficient roof drainage.

A vapor control layer ③ is placed on top of the steel deck (if required) and will restrict the passage of moisture vapor up into the insulation layer where it could otherwise condense and cause damage. Firestone offers **V-Gard™**, a self-adhesive SBS/polyethylene vapor control layer.

RESISTA AK Polyiso (PIR) insulation boards ⑥ (of appropriate thickness to achieve the required roof U-value) are adhered to the vapor control layer on beads of **I.S.O. Twin-Pack** insulation adhesive. ⑦

A high-density **ISOGARD HD** cover board ④ is adhered to the thermal insulation boards on beads of I.S.O. Twin-Pack insulation adhesive. ⑤

The **RubberGard™ EPDM** single-ply roofing membrane ② is fully adhered to the cover boards using **BA-2004(T)** or **BA-2012 Bonding Adhesive**. ③

The photovoltaic installation ① is then mounted over the RubberGard™ EPDM membrane.

SYSTEM FEATURES

- Suitable for unusual roof configurations
- Lightweight system
- Fast coverage
- Aesthetics
- High wind uplift performance
- Perfectly suited for green roofs and roofs with PV installations

RUBBERGARD™ EPDM FEATURES

- > 300% elasticity to cope with building & thermal movement
- High flexibility at low temperatures (down to -45°C)
- Large, seamless sheets – less detailing onsite, faster installation
- UV resistant for long service life
- Environmentally friendly
- Compatible with extensive green roof systems & photovoltaic systems
- May only be installed by Firestone-trained, Authorised and Licensed Contractors

SYSTEM COMPONENTS

- RubberGard™ EPDM
- BA-2004(T) Bonding Adhesive
- BA-2012 Bonding Adhesive
- ISOGARD HD Cover Board
- RESISTA AK PIR insulation
- I.S.O. Twin Pack Adhesive
- V-Gard™ vapor control layer



QUICK SPEC

Specification Details & Options

Membrane	Thickness	Grade
RubberGard™ EPDM	1.5 mm	LS-FR E (Low Slope Fire Retardant)
The RubberGard™ EPDM single-ply waterproofing membrane is made of 100% cured, non-reinforced Ethylene-Propylene-Diene-Terpolymer (EPDM) synthetic rubber, manufactured in an ISO9001 and ISO14001 registered facility. It has a minimum unspliced width of 3.05 m		
Specification compliance: UL Classified/ FM Approved ASTM D 4637/ EN 13956 (CE Mark) 7500 hrs of Artificial Ageing as per EN 1297		

Thermal insulation	Thickness	Thermal conductivity (λ-value)
RESISTA AK	Ranging from 30 to 140 mm	0.023 W/m.K
Please consult Firestone's technical department for detailed R-Value/U-value calculations, as required		
Firestone RESISTA AK insulation board consists of a closed-cell polyiso foam core laminated on both sides to a gastight multi-layered aluminium complex. The foam technology uses a HCFC-free blowing agent with a GWP (Global Warming Potential) of less than 5 and zero ODP (Ozone Depletion Potential).		
Specification compliance: EN 13165 (CE Mark)		

Cover Board	Thickness	Density	Compressive Strength
ISOGARD HD	12.7 mm	80 kg/m ³	827kpa
ISOGARD HD enhances the durability of roofs requiring frequent access, green roofs, and photovoltaic roofs			

Membrane Bonding Adhesives	Application Method	Approximate Coverage rate
BA-2004(T)	Super spreader or roller applied contact adhesive	5 to 7m ² /US Gallon (2-sided)
BA-2012	Super spreader or roller applied contact adhesive	2.35 to 3 m ² / Liter (2-sided)

Waterproofing Details

Lap Splices		100 mm minimum overlap with 76 mm QuickSeam™ Splice Tape
Base Tie-in (required at all membrane angle changes >15%)	1	QuickSeam™ RPF Strips mechanically attached to the structure with metal batten bars or approved plates and appropriate fasteners @300 mm max. o.c.
	2	RubberGard™ membrane mechanically attached to the structure with metal batten bars & appropriate fasteners @300 mm max. o.c.
Flashings		The RubberGard™ EPDM membrane is fully adhered to all abutments and reveals to masonry with Bonding Adhesive and terminated at a height not less than 150 mm above the finished roof level
Corners	1	QuickSeam™ FormFlash is used for corner flashing
	2	Folded internal corners are preferred where practical
Pipe penetrations	1	Field-fabricate using QuickSeam™ FormFlash
	2	Flashing of pipe penetrations with QuickSeam™ Pipe Flashing
Drains	1	Water-block Seal is installed between membrane and outlet bowl. Membrane is mechanically secured to outlet using integral clamping ring
	2	Insert outlet bedded on Water-Block Seal, secured & flashed with QuickSeam™ FormFlash or SA Flashing
Wall Terminations	1	Termination bar, fastened @200mm max. o.c. with Water-Block Seal and Lap Sealant HS installed along top edge
	2	Metal batten bar fastened @150mm max. o.c. with surface mounted or inserted metal counterflashing protection
Surface protection		Photovoltaic installation by specialist

Green Building Rating Schemes

Firestone is a leading BREEAM® and LEED® advocate and is pleased to offer roofing, lining and insulation products which contribute to achieve high ratings. Please contact your local Firestone representative for an overview of the standards set by both BREEAM® and LEED® and how Firestone products can minimize your environmental impact and maximize building value.

BREEAM®	By using the RubberGard™ EPDM roof system in combination with solar panels, up to 36 credits can be gained as per BREEAM® standards
LEED®	By using the RubberGard™ EPDM roof system in combination with solar panels, up to 52 credits can be gained as per LEED® standards

NB: Specifications provided for guidance only and subject to change without notice. Always consult www.firestonebpe.com for the latest information