GRIPSET 51

SOLVENT FREE BITUMEN RUBBER MEMBRANE

technical **data sheet**

Description

Gripset 51 is a solvent free bitumen rubber liquid membrane that has excellent sealing and adhesion properties over a number of porous and non porous surfaces.

Gripset 51 is a versatile membrane in both new and existing construction for underground and external areas. Besides offering excellent membrane properties, also can be used as a protective coating for timber and metal surfaces.

Features & Benefits

- Solvent free, non-toxic and non flammable
- Flexible, accommodating normal substrate movement
- Ability to withstand continuously immersed areas
- Crack bridging properties up to 2mm
- High adhesion properties to porous and non-porous surfaces
- Protective coating against corrosion, rot and salt damp
- Bonds to asphalt and bitumen surfaces, ideal for repair of failed and aged coatings
- Compatible with cement for waterproofing slurries and mortars
- User and environmentally safe
- Excellent sound deadening properties

Application

Gripset 51 is suitable for commercial, residential, industrial, rural and automotive applications.

Waterproofing Uses

- Retaining walls and underground surfaces
- External cellar and basement walls
- Planter boxes and garden beds
- Gutter repairs
- Roofing and membrane repairs
- Protective coating over metal and timer surfaces

Note: When exposed to long term UV, surface crazing may occur

Substrates

Suitable surfaces for bonding Gripset 51 over include:

- Concrete, render and masonry.
- Fibre cement, plasterboard and structural sheeting.
- Marine ply, timber sheeting and timber posts
- Clay and concrete blocks/bricks.
- Galvanised iron and zincalume (not raw steel).
- Bituminous and asphalt substrates.
- Polystyrene

When using over existing paints, membranes, coatings or other surface finishes confirm with Gripset Technical Services for suitability. Gripset 51 can be applied over damp surfaces free of surface water, however this will prolong curing.

Surface Preparation

Surfaces must be prepared thoroughly before commencing application. All substrates must be structurally sound, smooth, stable, dry, and clean.

Rough surfaces and voids to be evened or filled first and all brick/ block surfaces to be pointed flush. (refer to Gripset 11Y for concrete/ masonry repairs). All general surface defects to be repaired.

Building surfaces must be constructed to manufacturer's recommendations and relevant building standards in force at time of membrane application.

All surfaces are to be free of sharp protruding objects, loose material, de-bonded coatings, curing membranes/agents, release agents, wax residues, foreign particles, laitance, algae and moss, grime, oils, animal fats or grease remains.

Structurally unsound layers and surface contaminants are to be mechanically removed by abrasive blasting, blast tracking, grinding or equivalent methods.

Priming

Gripset 51 membrane must be applied onto primed surfaces:

Gripset 51 diluted 1:3 with water – for porous surfaces. Mix 51 with water until a smooth homogenous consistency is formed. Apply liberally to the total surface area by brush or roller

Gripset 51 diluted 1:1 with water – for non porous surfaces. Mix 51 with water until a smooth homogenous consistency is formed. Apply liberally to the total surface area by brush or roller. Alternatively, Gripset OP Primer can be used

Gripset 11Y slurry – immersed areas, extremely porous surfaces asphalt/ bitumen surfaces and existing coatings (suitability over existing coatings to be checked with Gripset Technical services before commencing). Mix Gripset 11Y in equal volumes to the following ratios: 1 part Gripset 11Y + 1 part Portland cement + 1 part fine wash sand, mix to form homogenous slurry. Brush apply to substrate at coverage of 1 litre per 3 m². Membrane is to be applied over primer slurry while primer is in a damp/wet state, i.e. "wet on wet" application

Gripset P10 or E60 primer – for surfaces with residual moisture or subject to rising damp. Refer to individual data sheets for specific coverage details. Allow respective primer to dry for a minimum 24 hours before applying membrane.

Note: Refer to data sheets for above primers before using

Detailing

All critical areas such as joints, junctions, movement zones, penetrations drainage points and cracks are to be correctly sealed and detailed prior to membrane application.

Voids, gaps and undulating surfaces in concrete/mansory	Filled and evened with Gripset 11Y repair mortar compound
Static cracks up to 2mm:	Filled with Gripset SB, followed by Gripset RF reinforcement
Live cracks and cracks >1mm:	Filled with Gripset SB followed by Elastoproof Joint Band
Bond Breaker:	Elastoproof Joint Band to wall/floor junctions and wall/wall junctions.
Movement or Expansion Joints:	Elastoproof Joint Band
Penetrations, Pipes, Drain outlets:	Elastoproof Collars or Gripset SB with Gripset RF Reinforcement where collars cannot be utlised Butyl Squares over leak control flanges

Application and Coverage

For general waterproofing applications product is to be applied in a minimum of 2 coats at a total minimum coverage of 1.5litres/m² forming a minimum dried film thickness of approximately 1.2mm. Apply subsequent coats at different directions to the previous coat. Coverage is dependent upon surface condition and will vary accordingly as uneven and porous surfaces will require greater coverage to achieve the specified film thickness. Product can be applied by medium nap roller or brush.
For retainer walls and other underground applications Gripset recommends applying protection boards with Gripset BRW sealing strips to ensure membrane is not damaged.

Stir prior to use.

Installing Elastoproof Bond Breaker Joint Band

Measure and cut Elastoproof Joint Band for all wall/floor junction areas. Apply first coat of Gripset 51 membrane to extending 150mm up walls and on to floors, and embed Elastoproof Joint Band into wet bed of liquid membrane, ensuring fabric edges are fully wet out and no air bubbles exist behind the fabric. Rear rubber section of Elastoproof Joint Band is not bonded to substrates. At sections where Joint Band is to be joined, a minimum 50mm overlap is required. Elastoproof Prefabricated Corners are available for both internal (90°C) and external (270°C) junctions, enabling Joint Band to overlap and avoid joint at critical areas. If Prefabricated corners are not used, Elastoproof Joint Band is to have bottom leg cut and folded; ensuring fabric is completely bonded with Gripset 51 membrane.

Sealing floor wastes and penetrations

For floor pipes protruding floors, Elastoproof Collars are to be fitted over the neck of the pipe, embedding fabric edges into wet bed of Gripset 51 membrane. For sealing penetrations where Elastoproof product cannot be used, seal around base of penetration at abutment to substrate using Gripset SB sealant followed RF Fabric turned up the penetration and embedded into 51 membrane.
For floor wastes that are finished level with the floor, the Gripset 51 membrane with Gripset RF Fabric embedded is to be dressed down into the waste outlet at a minimum 50mm ensuring the perimeter of the pipe/substrate abutment is sealed.
For leak control flanges apply Gripset SB or compatible sealant around edges of flange at interface with floor substrate. Gripset 51 membrane with Gripset RF Fabric embedded is to be applied over edges of flange at floor substrate abutment until total perimeter is sealed. Return 51 membrane down into flange. For alternative sealing option see Elastoproof Butyl Squares.
When the detailing application has been completed apply Gripset 51 membrane to the total floor area and to wall and floor areas as required. A continuous seamless membrane should be the final finish to the total area upon completion of the waterproofing membrane application.

Mixing 51 with mortar - High build applications

Gripset 51 can be mixed with mortar to:

- Form waterproof fillets at wall/floor junctions (e.g. planters, garden beds etc)
- Filling voids and levelling asphalt and bitumen surfaces
- Thin build render coats on rough and uneven surfaces (e.g. block retaining walls)

Mortar: 3 parts sand to 1 parts cement, or use Gripset DM
Note: Wet dry components with water to form a working mortar before being mixed with Gripset 51.

Mixing Ratios of Gripset 51 and mortar for high build applications

At 1:1 – based on parts by volume

Mixing 51 with mortar - Low build membrane applications

Gripset 51 can be mixed with mortar to:

- Facilitate membrane drying/curing in colder temperatures
- Provide enhanced filling properties over porous or uneven substrates
- Improve coverage efficiencies

Mortar: 3 parts sand to 1 parts cement; or use Gripset DM
Important: Wet dry components with water to form a working mortar before being mixed with Gripset 51.
Mixing Ratios of Gripset 51 and mortar for low build applications:
At 3:1 – based on parts by volume

Use Type A Portland cement and wash sand for these applications. Best results achieved mixing components together with an electric stirrer at medium speed.
For enhanced curing properties, as an alternative to standard mortar, mix Portland cement with water to form a smooth slurry consistency. Add 10% of the cement slurry by volume into the Gripset 51 and mix well until combined.

Storage conditions

- Best stored at room temperature.
- Avoid cold freezing conditions and off concrete floors.
- Do not store in direct sunlight.
- Shelf life: 24 months in unopened container

Packaging

- 5 and 15 Litre pails & 200 Litre drums

Precautions

- Not to be used as a trafficable coating
- Not to be finished directly over with tiles, renders, screeds, paints or other surface finishes
- Do not apply to areas when rain is imminent
- Not to be applied over glass or glazed surfaces
- Not designed as a sealant for expansion or control joints
- Not to be used in areas where solvent or petroleum based products may be spilled
- Not to be used in areas subject to rising damp or negative hydrostatic conditions
- Do not apply when surface temperature is below 5°C or above 35°C
- Safety Data sheet (SDS) available
- For further information about this product contact technical department of Gripset Industries

Clean up

- In water while wet.
- Once dried product needs to be removed mechanically or by solvent

TECHNICAL DATA

Appearance	Wet form-Charcoal; Dry - Black
Form	Creamy viscosity – thixotropic
Drying *Based on normal ambient temperatures of 23°C and 50% RH* **Temperature, humidity and porosity will vary dry times*	Tack Free: 60-90 minutes Re-coat: 2-4 hours Dry film – 24 hours Backfill: 5 days curing Flood test: 10 days curing
Specific gravity	1.15kg/litre
Shore A hardness (ASTM D2240-97)	52
Tensile Strength (AS1145-1989)	0.3 MPa
Elongation (AS1145-1989)	524%
After Chemical Immersion (AS1145-1989)	310%
Water Vapour Transmission (ASTM E96-95)	1.2g/24h/m²
Crack Bridging (ASTM C876:95)	Able to bridge cracks up to 2mm
Water pressure	3.5 bar positive pressure
Water Absorption (AS121 AppK)	1 part Gripset 51:1 part mortar – 1.66% (by volume)
VOC Content (ISO 13741-1)	0.08g/litre
The VOC Content of Gripset 38 is below the maximum VOC Content for Architectural and Interior Sealants as required by Green Star Ratings tools Education v1, Healthcare v1, Industrial v1, Multi Unit Residential v1, Office Interiors v1.1, Office Design v2, Office v3, Office As Built v2 and Retail Centre v1	

Notes

It is recommended before commencing the application; that adhesion of products to be used (e.g. primers, membranes, coatings adhesives etc) is tested over a typical area of the prepared surface to ensure satisfactory adhesion. It is the responsibility of the applicator to carry this out and accept the substrate suitability before any application starts. Gripset Industries offers a service for pre testing adhesion to surfaces for large commercial areas or unusual substrates. For further details contact Gripset Industries.

Details contained in product data sheets are general. For any situation or items not covered in this data sheet, it is the responsibility of the applicator to check with Gripset Technical Services before commencing the application. A written confirmation will then be issued by Gripset Technical Services.

RLA Polymers

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Product Disclaimer

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