

Technical Data Sheet (TDS)

Product: GURTEX[®] SG338



TWO COMPONENT WATER-BASED WATERPROOF ANTI-CORROSIVE LATEX MEMBRANE (EXTERIOR DARK)




Chemical description : Two-Component Water-based Waterproof Latex Coating.

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A) Description:

- This is a two-component water-based waterproofing coating membrane. Dark brown emulsion adhesives (liquid form). Black in cured form
- Direct twin spray applications, rapid curing at room temperature.
- A water-based substance formed by artificial latex and bitumen,
- Extremely versatile, easy to use and fast to apply. Up to 1000m² per machine per day with a skilled spray operator and 3 labourers, on a flat substrate. High application efficiency.
- Strong bonding adhesion with high elasticity and flexibility.
- Gurtex[®] SG338 is a fast and efficient replacement for bitumen sheet waterproofing applications for professional construction (SG338 is seamless)
- It allows building materials such as cement, tiles, clay, pebbles, bricks, thermal insulating / anti-shrinkage materials and painting to be apply onto its dried surface with good and lasting adhesions (24 hours after the application when the surface is dried – depends on humidity and temperatures, curing of the product can take longer in tropical areas)
- It is also used as anti-corrosion applications for pipes and installations that is exposed to Acidic / Alkaline environment
- Can apply on moist surface. (Avoid oily and dust surfaces)
- Fire resistant characteristic material (Class A Rating)
- Anti-piercing protection.
- Noise reduction with excellent hail resistance. High wind uplift rating.

B) Physical Properties (Cured Form)

Description	Properties / Value		
Colour	Black		
Volatile Organic Compounds	Contains no solvents		
Application Temperature	5°C to 40°C		
Membrane Thickness	Min 1 - 1.5mm		
Packaging	200kg Plastic drums		
Resistance to Ponding	Withstands Indefinitely		
Solid Content	60%		
Shelf Life	12 Months		
			GuoBiao Standards
			International Standards
Elongation & Recovery	>1000%	90%	
Fire Resistance	Passed		ASTM D412
Hail Resistance	Severe Rating		ASTM E108 CLASS A
Heat Resistance	>80°C		FM 4470
Hydrostatic Pressure	0.5Mpa - 30 minutes		ASTM D2939
Water Repellence	without water seepage		DIN 52123
Low temperature flexibility	Pass -20°C		ASTM D5147
Tensile Strength	0.94Mpa		ASTM D412
Resistance to Puncture	Excellent		ASTM D3746
Resistance to Standing Water	Passed		ASTM D2939
Water Vapor Permeance	0.34 perms		ASTM E96
Wind Uplift	Passed		FM 4470
UV Exposure	20 years		ASTM G155
INTERNATIONAL CERTIFICATION			
GuoBiao Standards			Test Standard & Aging Test Method
ASTM International			International Standards Organization
International Organization for Standardization			International Classification for Standards

C) Applications:

Gurtex® SG338 can be applied to a wide range material like geotextiles, metals, galvanized metals, PVC, cement, stone, tiles and piping. This product is not suited to direct heavy foot traffic in high temperatures. If the product is used on a walkway or pedestrian area, cover the product with a 3cm layer of cement to avoid damage

- Repairs leaks and fills hairline cracks in roofs, external walls and floors
- Water storage infrastructure: artificial dams, ponds, pools and tanks in sewage plants
- Water transport networks including underground pipes, sewage piping and drainage.
- Tunnels, roadways, subways, culvert and bridges
- Dam walls that moves with surrounding soils

- Anti-corrosion and waterproofing of outdoor metal roofing or structures.

D) How to apply:

a) Preparing the surface

- I. Make sure the surface and structures beneath the substrates are sound and stable. The product does not provide structural support.
- II. Make sure the substrate is smooth – air and water will be trapped in uneven or in pores of the substrate area – this will create bubbles, as the product will expand during hot periods however this is not a problem or weaken the product. Repair the bubble by a crosscut or puncture and fill area with product without the activator.
- III. Remove all dust, dirt, loose debris or oil stains from the substrate
- IV. Make sure all cleaning solvents are kept far away from working area.

b) We recommend spraying a very thin “primer” layer of pure SG338 on the substrate (without the additives) and allow it to dry for 4 hours before starting with the full application. The full application needs to be done within 6 hours after “primer” application.

c) Preparing the Additives

- V. Prepare a big drum of clean water (50L),
- VI. Mixing proportions are by weight: 8kg Calcium Chloride (74%) to 100litres of clean water
Never reduce the ratio to less than the 8% formula ratio (4kg per 50 liters). Too little Calcium Chloride will result in a milky water discharge from the sprayed surface, which will alter the curing timing and surface hardness. A weak mixture will take longer to dry, and will result in poor performance of the sprayed membrane
- VII. Stir mixture until no solids are visible (minimum 5 minutes).

Important Safety Notice: Do not let this additive encounter water on human skin. Heat will be generated in the dissolving process that might cause skin burns.

d) Preparing the Latex

- VIII. Put the pre-mixed additive next to the spraying machine.
- IX. Put the SG338 Latex drum on the opposite side of the spraying machine – avoid direct sunlight. Remove the container cover,
- X. Stir the SG338. Solids in the SG338 to block the sprayers. If any solid pieces are found, make sure to filter product before spraying.

Important Notes

- ** Spray tubing cannot be longer than a maximum of 40m
- ** When in operation, make sure the SG338 drum is not in direct sunlight
- ** Never store product on the premises in direct sunlight

Machine Operation

- i. The system uses a diaphragm pump to perform the spraying application,
- ii. Turn off both valves and minimize the pressure before starting the pump engine. (check pressure on the gauge)
- iii. Place the suction tubes and flow back tubes into both the Latex drum and the additive drum.
- iv. Run the pump. Both the SG338 and the Additives will start to circulate within the containers. Let this circulation mode to run for 5 minutes as to let the SG338 and additives mix evenly in the containers.
- v. Release the flow control valves to let the material flow into the spray gun.

- vi. Turn on the Additives spray gun nozzle and adjust the spraying control to get a powerful sector fan spray pattern.
- vii. Turn on the SG338 spray gun nozzle and adjust the spraying control to get a powerful sector fan spray pattern.
- viii. Increase both the pressure control valves to 300psi or 20Bar.
- ix. Spray from left to right / up and down, moving with an even spray stroke pattern. Maintain a 6inch (15cm) overlap between strokes.
- x. Cover the area with 3 to 4 layers of latex membrane to achieve a 1 - 1.5mm thickness (do not overspray – maximum of 4mm)
- xi. As that mixture dries, small puddles of water will be expelled from the membrane and form on the surface. Do not spray latex layers on top of these puddles. Start spraying from the lowest point to the higher area

Important Notes

- ** To avoid spillage, use a ground sheet underneath the machine and the 2 drums
- ** Avoid substrate temperatures of 40°C and above (this will cause bubbles) avoid humidity above 75% - it will take longer to cure – add 3 days if above
- ** Store drums always under 40°C in the shade or ventilated room
- ** Always spray from the lowest point, upwards to a higher point. This is to avoid spraying over puddles of the extracted water (which will create bubbles)
- ** Use safety and protective gear (see MSDS document)
- ** Do not spray in windy conditions – the product will end up on adjacent surfaces
- ** Operators should wear full body disposable overalls; shoe covers and masks.
- ** In all circumstances let the membrane cure for 5 days, for a complete dry, depending on local weather and if any bubbles appear during this period, the best method is to have a cross cut or puncture into them, depends on the size of bubble and then, after having waited for them to evaporate/dry out, a patch of the appropriate material, clean patch – no dust or foreign particles, liquid membrane (SG338 or SG368) should be applied or inserted before handing over project to client for final inspection

E) Cleaning of machine after the spraying:



- a) Prepare the cleaning solution
 - i. Prepare a large clean empty container,
 - ii. Fill container with 10 to 20L of a cleaning solution. Recommended cleaning solutions are kerosene, diesel oil, petroleum or cleaning solvent.
 - iii. Fill a second container with 50 liters of fresh water.
 - iv. Move both containers next to spraying machine.

- b) Cleaning the pipes and spray nozzle
 - i. After spraying turn off the spray nozzles on the spray gun.
 - ii. Open the pressure valves on the spraying machine.
 - iii. Turn the pump to circulating mode.
 - iv. Lift the SG338 inflow and outflow pipes from the SG338 container and place into the **cleaning solution** container
 - v. Lift the inflow and outflow additive pipes from the Additive drum and place into a 50-liter **freshwater** container.
 - vi. Let the machine run on the circulating mode for a minimum 10 minutes
 - vii. Fill a large drum with water. Point the spray gun nozzle into the drum and turn on both spray valves. Spray the cleaning solution and fresh water for a minimum of 10 minutes.
 - a. The cleaning solution running through the pipe cleans the high-pressure pipe that carries the SG338 as well as the sprayer head.
 - b. Simultaneously, the fresh water cleans the additive pipe. It is important to clean the additive pipes to prevent corrosion of the additive pump and spray head.
 - viii. Lift both the Additive inflow and outflow pipes from the freshwater container, and empty the pipes allowing the water flow back into the freshwater container.
 - ix. Lift both the SG338 inflow and outflow pipes from the cleaning solution container and let the cleaning solution (dirty) flow all back into the container.
 - x. Turn off the pump.

- xi. Clean the machine and the external of the high-pressure spray pipe with cleaning solution and a clean cloth.
- xii. Pick up the SG338 container polybag, seal the polybag opening with a cable-tie, so that the product can be used again. Put the original container lid back to seal container. Store container in a cool place out of direct sunlight.
- xiii. The extra additive solution cannot be stored or kept overnight.

Special Preparation: cracked concrete, corners and open gaps

- i. Where the substrate is cracked, clean dust and debris from the crack line and surrounding surfaces.
- ii. Fill the crack gap with cement to prevent water from coming up from beneath.
- iii. Apply SG338 or SG368 to the cracked surface with a large paintbrush or long-handled roller, and immediately place a layer of geo-fabric material over the wet painted crack area; apply slight pressure to make sure the geo-fabric bonds with the wet waterproofing paint beneath.
- iv. Apply a second coat of Gurtex® SG368 over the geotextile and allow dry.
- v. When all the cracked / leaking gaps are properly reinforced Gurtex® SG338 can now be sprayed over the full area.
- vi. Repair work (respray) can be directly applied on areas that is not properly covered by the first application - simply remove any dust, debris or water on the surface of the problem areas and spray over first coated layer.
- vii. You can use a Gurtex® SG368 applied with a roller or paintbrush on areas where the sprayer cannot reach.

Created for Gurtex® SG series of waterproofing, anti-corrosion and heat insulating polymer materials.

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