

TECHNICAL DATA FOR BS MOISTUREZERO ADVANCE

Single Component Cold Applied Acrylic Waterproofing Membrane

Description of BS MoistureZero Advance

BS MoistureZero Advance is a Single Component Cold Applied Acrylic Waterproofing Membrane. It's a 100% acrylic waterproofing system with a highly elastomeric property & a long life UV resistant system compatible with even difficult substrates like old bitumen or APP treated surfaces.

Advantages of BS MoistureZero Advance

1. Highly elastomeric system with crack bridging properties up-to 3mm.
2. Resistance to ultra violet rays and ageing.
3. High Solar Reflective Index for thermal comfort.
4. Low VOC system.
5. Compatible for drinking water structures
6. Single component and Ready to Use straight out of box
7. Excellent adhesion on porous and non-porous substrates like concrete, ply-boards, metal etc.
8. Forms a seamless membrane for reliable waterproofing which is
9. Root resistant for green roofs & podium slab use.

Uses of BS MoistureZero Advance

1. Waterproofing of terraces on both new construction and refurbishment projects
2. Complex roofs with complicated details, pergolas and structures where it is hard to apply other systems.
3. Economical extension of life for old roofs needing rehabilitation.
4. As an effective reflective coating to reduce thermal impact on building roofs.

Technical Properties of BS MoistureZero Advance

Form	Thick Liquid
Appearance	White
Solid Content	65±1
Density	1.28 to 1.29
Viscosity	58±1 Seconds
pH Value	8-9
Flammable Value	NIL
Shelf Life	18 Months from Mfg. month
Drying time:-	
Ñ Soft Drying	2 hr.
Ñ Hard Drying	8 hr.
Ñ Fully Cross Linked	72 hr.
Coverage	1.2 to 1.5 kg/m ² for Two Coats
Elongation at break	300%
Solar Reflection Index(SRI)	.8
Application Tools	Brush, Roller or Spray

*Above results are for a typical sample. We strongly advise to carry out site trials before application.

Advised System Considerations:-

1) For Roof Coating.

-) Providing a stable coating, for extending life of old roofs.
-) Use as a reflective coating to enhance thermal efficiency of roofs.
-) Build up: 3 coats, One coat of BS SmartPrime coat plus two coats of BS MoistureZero Advance
-) Substrates: Concrete, Metal, Wood, Tiles, Stone Asphalt treated or bituminous surfaces.
-) Primer: BS SmartPrime.

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Tips

- 1) May be diluted with 5 % to 10% water in high heat conditions
- 2) For Asphalt surfaces 3 coats of BS MoistureZero are advised after one coat of BS SmartPrime priming system
- 3) Apply coats perpendicular to each other
- 4) Re-coat Interval 6 to 8 hours
- 5) For spraying specifications please consult with our sales team for getting spray machine specifications.

Storage & Disposal

- 1) Like all chemical materials, use shaded storage with ambient temperature not exceeding 50° C.
- 2) Do not reuse empty containers.
- 3) Follow local guidelines and legal measures to dispose leftover material.
- 4) Do not dispose-off in open ground.

Application advice for various substrates.

Substrate Preparation:-

1. Cementitious & Mineral substrates:

New concrete should be allowed to cure for at least 28 days and should have a pull of strength of $\geq 1.5\text{N/mm}^2$.

Cementitious or mineral based substrates must be prepared mechanically using grinders, wire brush or scarifying equipment to clear laitance and achieve an open & clear surface. Any loose material and weak concrete must be properly identified & cleared and surface defects such as pin holes and voids must be fully exposed.

Repairs to the substrate, filling of joints, cracks & voids must be carried out using appropriate products using BS Smartbond 100 or solvent free epoxy system BS Epoxy 611.

It is advised to apply the embedment coats in the late afternoon or evening in case of high heat due to chances of out gassing.

Always prime the surface using BS SmartPrime on the substrate and use a reinforced system for larger roof using glass fibre mesh

2. Brick and Stone:

In this situation mortar joints must be sound and preferably flush pointed, If not level the joints using BS Smartbond 100 polymerising & bonding system. Use localised reinforcement over joints and prime before applying BS Moisture Zero Advance.

3. Slates, tiles, etc.:-

Ensure all slates/tiles are sound and securely fastened, replacing missing or broken section. Fully glazed tiles must be abraded prior to priming and subsequent treatment with BS Moisture Zero Advance.

4. Bituminous Felt:

Ensure that Bituminous felt is firmly adhered or mechanically fixed to the substrate Bituminous felt should not contain any badly degraded areas. Prime using BS SmartPrime and always use a totally reinforced system.

5. Bituminous coating:

Coating should not have sticky or unstable surface, volatile mastic coating, or old coal tar coating. Prime with BS SmartPrime and always use a totally reinforced system.

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6. Metals:

Metals must be in sound condition. Abrade exposed surfaces to reveal bright metal. Use localised reinforcement over joints and fixings. If there is too much rust it should be treated with a suitable rust remover & then primed with BS SmartPrime.

7. Wooden Substrates:

Wood based panels or roof decks are to be in good condition, firmly adhered, or mechanically fixed & primed with BS SmartPrime.

8. Paints/Coatings:

Ensure the existing material is sound and firmly adhered. Remove any oxidized layers and use localised reinforcement over joints. Use BS SmartPrime & if needed apply two coats of primer for a deeper anchoring on painted surfaces.

	Above +3°C
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Limitations:-

- J Do not apply BS MoistureZero Advance on substrates with rising moisture.
- J Always apply during moderate temperatures. If applied during rising temperatures "pin holes" may occur from rising air. Also ensure that the substrate moisture must be less than 4%.
- J Ensure that temperatures does not drop below 8°C and that relative humidity does not exceed 80% until the Membrane has fully cured.
- J Ensure that BS MoistureZero Advance is totally Dry and the surface is without pinholes before applying any top coat.
- J Do not allow temporary ponding to remain between coat on any horizontal surfaces or until the final coating has totally cured. Brush or mop surface water away during this time.

Ponding test on the system to be carried out only after a minimum of 5 days after the system is applied. In cold climates this period can be prolonged.

BS MoistureZero Advance should not be applied on roofs subject to long term water stagnation.

BS MoistureZero Advance should not be applied on roofs subject to ponding water with the subsequent periods of front. In cold climatic zone for roofing structure with a pitch of less than 3% appropriate measure must have to be considered.

Substrate Preparation:-

Substrate Priming

Substrate	Primer	Consumption(kg/m ²)
Cementitious, Bricks & Stone, Slate, Tiles, Bituminous Coating, Metals, Wooden & Paints	BS SmartPrime or BS SmartPrime WB EP	≈ 0.3 – 0.35

Application Conditions/Limitations

Substrate Temperature	+8°C min / +40°C max
Ambient Temperature	+8°C min / +40°C max
Relative Air Humidity	80% max

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BS MoistureZero Advance is not recommended for pedestrian traffic. In case pedestrian traffic is unavoidable, BS MoistureZero Advance shall be covered with appropriate elements such as tiles, paver locks, screed etc.

Do not apply cementitious products (e.g. tile mortar) directly onto BS MoistureZero Advance. Use an Alkaline barrier, for example river / quartz sand.

Application Instructions

- J **Mixing:** - Stir BS Moisture Zero Advance thoroughly for 1 minute in order to achieve a homogeneous mixture. Avoided over mixing to minimise air entrainment.
- J **Application Method / Tools:** - The Priming coat must have cured to tack-free. For the waiting Time / over-coating please refer to the appropriate primer. Damageable areas (door frame) have to be protected with an adhesive tape.

Methodology

Roof Coating: - It applied in total 3 coats, one coat of BS SmartPrime plus two coats of BS MoistureZero Advance. Primer coat is applied with a dilution of 10% in water which will cure after 1-2hrs. Then apply first coat. Prior to the application of 2nd coat the indicated waiting time is 6-12 hrs.

Details for prior starting with waterproofing the horizontal surfaces

Step 1:- Apply primer coat of BS SmartPrime with 10% dil with water, which will cure in 1-2 hrs with an approx... Consumption of 0.3-0.35 kg/m²).

Step 2:- Apply the First Coat of appr 0.70-0.75 kg/m² of BS MoistureZero Advance on a length of approx. 1m.

Step 3:- Roll in the BS MoistureZero Advance at the detailing and ensure that there are no bubbles or creases.

Step 4:- Apply coat of appr. 0.60-0.70 kg/m² coat right into the wet fabric to achieve the required film thickness.

Step 5:- Third coat of shall be done after the coated surfaces has dried up (2-6 hrs.) with an approximate coverage of 0.50-0.70 kg/m².

The declaration of consumption rates is without obligation and depends on factors like: substrate porosity, substrate temperature, relative air humidity and air temperature.

Roof waterproofing over old bituminous membranes can be applied over old bituminous membranes. First clean the membrane and then coat it with primer or a solvent based bituminous primer, sprinkle fine sand over this coat and allow it to dry for at least 12 hrs. Or overnight.

This coat once dries is ready to take the roof waterproofing system as per the standard consumption above only the primer coat will be eliminated while applying the system.

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Tools

1. **Thick brush:**
Used for roofing system, if dust, Vegetation, Moss/algae or other contaminants are present on the existing roof, a power washer is required to clean the substrate prior to the application of Roofing System. Existing chipping should be removed by hand or scrubbing prior to power washing.
2. **Airless Spray Equipment:**
Used only for the roof coating system. Two spray applied layers is the minimum requirement. The pump should have the following parameter:-

min. pressure:	Min. output	Min. Nozzle:
220 bar	5.1 l/min	0.83mm(0.033 inch)

3. **Roller:**
Used for Roof System to ensure a consistent thickness of the BS MoistureZero Advance.

Cleaning of tools:

Clean all tools and application equipment with clean water immediately after use. Hardened/Cured material can only be removed mechanically.

Waiting time / Over Coating:

6-8 hrs. Depending upon the changing ambient conditions particularly temperature and relative humidity.

