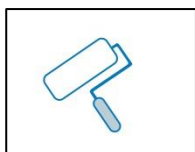


Product Description

RoofShield it is satin finish flexible acrylic co-polymer water based roof coating for exterior use only. **RoofShield** is a completely waterproof and as well maintenance free coating, alkali and UV resistant. It can be used on exterior concrete and plastered roof surfaces.



Recommended Use

RoofShield is for exterior use on roof surfaces:

Cement plaster
Concrete

Unsuitable are substrates showing efflorescence and substrates made of plastic, metal or wood.

Definition of Application Areas

Suitability according to Caparol Technical Advice Sheet No. 0606

Interior 1	Interior 2	Interior 3	Exterior 1	Exterior 2
–	–	–	+	+
(-) inapplicable / (o) of limited suitability / (+) suitable				

Physical Properties

Volume solids	51±2%
Colour*	White
VOC	14.7 g/litre
Thinner/Cleaner	Potable clean water
Finish	Satin
Packing size	5 & 23 kg
Shelf life	12 months

Advantages

Provides a decorative, protective and maintenance-free finish
Superior flow and levelling
Alkali and UV resistant
Easy to apply
Completely eradicates water ingress and provides long term protection to all types of roofs
Provides permanent elasticity and vapour permeability to prevent cracking and flaking
Easy to apply

Certificates and Test Values*

Tensile strength: 1.42 N/mm² as per ASTM 412-98a

Elongation at break: 287.3% as per ASTM 412-98a water proofing compound

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ADCE certified civil supplier

*Additional certificates and approvals may available on request or could be arranged if required.

Surface Preparation

The substrate must be even, clean, permanently dry, solid, sound/stable, and free from inclusions, loose particles and all separating materials that may prevent adhesion. Remove unsound coatings of enamels, dispersion paints, synthetic renders/plasters and unsound mineral paint coatings. Concrete and plaster surfaces with dirt deposits or fines/sintered layer must be cleaned mechanically or with high-pressure cleaner, in compliance with the regulations. Clean sound, adherent paint coatings dry or wet. Clean surfaces with organic growth (moss, algae and mild) by high pressure water jet in compliance with the regulations. Treat the surfaces with **CapaTox** and allow drying thoroughly. Clean surfaces soiled with industrial gases or soot by high pressure water jet and suitable cleaners in compliance with the regulations. The penetration of water and moisture in cracks, joints, coarse-textured pores, etc., must be excluded. If necessary, carry out additional substrate levelling measures. Check existing coatings for their load-bearing capacity. Remove any non-load bearing or structurally weak coatings. Any damaged areas or surface irregularities should be repaired before application. Repairs must be well set and dried out. Damp or not fully cured substrates can lead to defects in subsequent coats, such as blistering or cracks. It is most important that substrates are correctly prepared prior to application of paint.

Mixing Paint

RoofShield is single component water based product, should be mixed properly before application. The material can be diluted with potable clean water only. Stir **RoofShield** with a low-speed stainless steel agitator. Do not use mixers made of aluminium - danger of discolouration. Use as little water as possible to achieve application consistency. Stir well before application. For airless spraying the amount of water added depends on the requirement of the airless machine. If necessary adjust to working consistency with tap water up to max. 10 %. Ensure short stirring times at low speed to prevent foam formation in the binding agent. Foam formation can have an impact on wet adhesion with significantly lower consumption, and hence due to the lower paint density, can cause the substrate to shine through. This, in turn, leads to patchy and inhomogeneous drying of the render layer. As a rule, in case of strong colour shades less water needs to be added to achieve the optimum application consistency. Diluting the material too much will make application more difficult and will result in poorer characteristics (e.g. hiding power, colour shade). It's strongly recommend to use the thinned paint in same shift and not to store for next day as there are might chances of paint losing its characteristic's, settling, formation and chances of bacterial contamination from external sources. Hence recommended to estimate paint required for the shift and mix accordingly to avoid any problems.

Film Thickness and Spreading Rate*

	Minimum	Typical	Maximum	
Wet film thickness	980	1080	1180	µm
Dry film thickness	500	550	600	µm
Theoretical spreading rate	0.7	0.65	0.6	m ² /kg

*Indicated rates are indicative per coat, due allowance and wastage factor should be considered in practical application. This indication does not take into account usage for spilling or loss on site. The figure may also vary according to substrate or application conditions. The exact rate of consumption for your particular project is best established by a trial application on site and executed by your desired applicator.

Drying Time*

Substrate temperature	10°C	25°C	40°C	
Touch dry	8	4	2	h
Dry to over coat	16	8	4	h
Ready for stress	96	72	48	h

*The material cures physically by evaporation of water. Drying time generally related to air circulation, temperature, film thickness, no of coats and relative humidity. The given data must be considered as guidelines per coat only. The actual drying time before recoating may be shorter or longer, depending on film thickness, ventilation, humidity, underlying paint system, requirement for early handling and mechanical strength etc. The figures given are typical with: Good ventilation (outdoor exposure or free circulation of air), typical film thickness, on coat on top of inert substrate and relative humidity 70%.

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Application Conditions

Substrate temperature should be min.5°C and at least 3°C above the dew point of the air. Suitable processing temperature should be between + 5 °C to approx. 40 °C for material, substrate, water and ambient air during application and curing. At application below 10°C drying temperature will be significantly extended and spraying characteristics may be impaired. Paint to be applied to suitable primed surface.

Do not apply during strong wind, fog, high relative humidity, and imminent rain or frost. Do not apply or leave to dry in direct sunlight as this can lead to differences in gloss levels and even to slight cloudiness.

Application Equipment's/Tools

Manually application by roller, brush or airless spraying equipment

Guiding data for airless spray equipment*

Pressure at nozzle 150 - 180 bars

Nozzle tip 0.021" - 0.027"

Spray angle 25° - 65°

*The spray details given above are intended as a guide only, fluid hose length, diameter, paint temperature and project complexity all influence the choice of tip and operating pressure. Always check to ensure that filter is clean.

Typical Application Procedure*

For best results, dilute the product 100% with clean water and apply as a primer coat. Consecutive two undiluted coats are ideally applied after a 24-hour interval and at right angles to the priming coat. For durability, reinforce the system with glass fiber mesh in between the coats. Do not apply paint in damp or rainy weather. When applying by brush or roller, care should be taken to apply in one direction only. Does not brush like conventional emulsions and care must be taken not to allow pounding between coats.

* For system specific application instructions please refer to detailed MS (method statement) or specification.

Typical Paint System*

RoofShield can be used on suitable roof surfaces as follows:

Exterior roof surface standard paint system

	Coats
RoofShield as a primer (100% dilution with potable clean water)	1
RoofShield	2

* Above mentioned paint system is for general guide line only, can be changed as per specification requirements. As it is impossible to list herein the wide variety of substrates and their specific problems, please request our technical assistance in case of queries. We will provide appropriate working methods.

Please note: It is recommended to use trained and experienced applicator to carry out painting works.

Colour Stability

Due to the intensity of UV radiation and the effect of humidity, the surface of coatings changes over time. This can result in visible changes in colour. At the same time, it is a process which is influenced by substrate and environment conditions. This does not impair the quality and the functionality of the product.

When coated surfaces are exposed to mechanical stress it is possible that, due to the natural calibration grains used for darker, more intense colour shades, the areas of impact change to a lighter colour. This does not affect the quality and functionality of the product. It is not possible to give warranty for uniform colour accuracy and freedom from stains due to chemical and/or physical curing processes and fluctuations in the weather and different substrate conditions, e.g. uneven absorption behavior of the substrate, different substrate moisture levels over the entire the surface, partially very different alkalinity/substances from the substrate, direct solar radiation with sharply delineated shadowing on the freshly applied coating.

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Storage and Handling

12 months when stored in warehouse conditions below 35°C in the original, unopened packs. The product must be kept in in cool, dry well ventilated space and away from source of heat and ignition. Containers must be kept tightly closed and always handle with care. Keep out of reach of children.

Health and Safety

Always ensure good ventilation during application and drying. Do not eat, drink or smoke while using the product. Do not breathe vapors or spray when applying paint indoor by spray, wear proper air supplied breathing equipment's. Respiratory equipment's must be suitable for the purpose and meet appropriate standards. When applying paint, it is advisable to wear suitable eye protection, in case contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove splashes from skin, use soap and water or recognized skin cleaner. Do not use or store by hanging on a hook.

Materials and all related packaging must be disposed of in a safe way in accordance with the full requirements of the local authorities. Do not allow product to enter into wadis, waterways, drains, watercourses and soil. Only completely emptied containers should be given for recycling.

Material safety data sheet (MSDS) available on request.

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