SOLVENT BASED ACRYLIC CONCRETE SEALER

HARDCOAT

TECHNICAL DATA

1.0 DESCRIPTION

HARDCOAT is a solvent-based acrylic resin solution for use on concrete (normal and coloured - see precautions), masonry & slate to seal the surface. It is used to put a clear glaze on ground/polished concrete floors, exposed aggregate, imprinted (stamped) concrete drives, paths, etc. It helps to maintain the surface clean and prevent pigment leach-out.

HARDCOAT has excellent UV and weather resistance. For extremely porous surfaces, SAME DAY SEALER is preferred as fewer coats will be required for complete sealing.

2.0 PHYSICAL PROPERTIES

2.1 Colour Clear and colourless. Dries to a satin finish depending on surface

roughness. Also available in grey (refer HARDCOAT GREY data sheet).

2.2 Specific Gravity 0.90

2.3 Flash Point 24 °C. Flammable. Avoid all sources of ignition.

2.4 Viscosity Low

2.5 Min. Application Temp. 5 °C substrate temperature.

2.6 Toxicity Poisonous. Contains aromatic hydrocarbon mixture including

Xylene. Non-toxic when completely dry. MSDS available on request.

2.7 D.G. Classification Class 3 (Resin Solution Flammable, UN 1866)

2.8 Shelf Life
2.9 Coverage
Over 1 yr. in original sealed container.
Exposed Aggregate: 4 m² per litre

Broomed Surface: 7 m² per litre Trowelled Surface: 12 m² per litre

Coverage is approximate depending on surface porosity and application method.

3.0 USES

HARDCOAT is used to put a clear glaze on concrete and masonry surfaces such as footpaths, driveways, lock-ups, garages, industrial floors, exposed aggregate, etc.

HARDCOAT provides a weatherproof (but not waterproof), stain resistant and dustproof finish. It may be used to seal dusting and porous surfaces to help against further degradation.

HARDCOAT is formulated to enhance the beauty of concrete surfaces.

HARDCOAT is resistant to rain, sun, water and grease offering excellent durability with good colour retention and clarity. HARDCOAT is non-yellowing.



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TECHNICAL DATA (continued)

4.0 BENEFITS

HARDCOAT offers the following benefits and advantages:

- Touch dry in 30 minutes. Can be opened to foot traffic in one to 2 hours (exterior application with good drying conditions at 20 °C one coat applications). Additional coats must be allowed to dry completely, approximately 12 hours under good drying conditions before being opened to traffic.
- Highly weather resistant, providing a clear, tough, easy to clean film.
- Excellent UV stability to prevent yellowing in exterior applications.
- Prevents surface dusting of concrete.
- Dries to a satin sheen depending on surface roughness. Additional coats increase gloss (up to 3 coats in total).
- May be used on interior concrete surfaces (good ventilation required).

5.0 IMPORTANT INFORMATION (read before starting application)

This data sheet provides instructions and details based on an assumption that the substrate is fit-for-purpose and free from defects and conditions that might impact the application or performance of the coating over time. For further details on this, please read the "Stratmore Guide to Sealing Concrete" available for download from our website.

Concrete is a porous material. Water can enter concrete by many different routes such as from rain, ground water run-off, below ground water, etc. When water enters concrete, it escapes through the pores and capillaries at different rates depending on the porosity of the concrete, the temperature, wind conditions, whether the water is transient (such as rain) or permanent (such as below ground water table), etc. Concrete that appears dry at the surface may be saturated with water further into the substrate. Applying a concrete sealer to concrete that contains excess moisture (water), depending on how thickly the sealer is applied (and the number of coats), significantly reduces or stops water vapour from being able to escape through the top (sealed) surface of the concrete. This can lead to failure of the coating, including discolouration (white/cloudy appearance or blushing), delamination (the sealer comes away from the surface), reduced service life, etc. It is therefore important to read all precautions under section 6 before starting application.



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TECHNICAL DATA (continued)

6.0 PRECAUTIONS

The following precautions are provided to guide the applicator/specifier where ideal conditions may not exist. We strongly recommend determining both the substrate moisture levels and performing a test for suitability as detailed below prior to starting the project application.

Determining Substrate Moisture

6.1 Before coating concrete or other suitable substrates, it is vital that the you establish how much moisture it contains. The "Stratmore Guide to Sealing Concrete" (available for download from our website), lists methods and ways to determine how much moisture may be in the substrate. We strongly recommend that the applicator and/or specifier reads this document before starting application. Problems with the application of HARDCOAT associated with excess moisture (as noted above and detailed in the guide) are not a product performance related issue and must be addressed by the applicator/specifier.

Performing a Test Application

- 6.2 Due to the surface variations inherent in concrete surfaces, slate and masonry products, applicator must test HARDCOAT in a small inconspicuous area before proceeding with full application to determine if suitable for the particular application and/or our information is applicable in a particular circumstance. Where moisture may be an issue, monitor the test area for as long as practicable prior to starting the project application. Specifier and user shall determine suitability for a specific application and assume all responsibilities in connection therewith.
- 6.3 Determine required sheen level and sealing effectiveness by applying the required number of coats before proceeding with complete application. Substrate composition may result in random variations in porosity, thereby affecting coverage, sheen levels and sealing effectiveness. Coverage rates must be adjusted to compensate for the resulting penetration. Note that being a clear acrylic, HARDCOAT will darken surfaces to which it is applied, and the effect will be greater with additional coats. Uneven substrate composition or colour will not be rectified by applying HARDCOAT to the surface.

Application Temperature

6.4 Do not apply HARDCOAT if the temperature of the substrate is below 5°C. Substrate temperature must be 3°C above the dew point. Check drying time if applied indoors and allow extra time before opening floor to traffic. Ensure good through ventilation (flame proof mechanical if required) during and after application until completely dried. Protect from rain, moisture, etc. until each coat is completely dry. For porous and/or coloured surfaces, protect from water contact until all the required coats have been applied and dried completely.



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TECHNICAL DATA (continued)

PRECAUTIONS (continued)

Wear & Recoating

6.5 HARDCOAT will wear, but it can easily be overcoated, as it is resoluble. Wear rate will depend on the substrate and type of traffic. For vehicle traffic, HARDCOAT will wear more quickly, especially in areas where wheels turn or where traffic is restricted to one location (such as a driveway) and where forklifts operate. For flooring applications, any items dragged across the HARDCOAT surface will cause the surface to be scratched and wear more quickly. Before repairing damaged areas or overcoating with more HARDCOAT, clean thoroughly and allow to dry. When recoating, do not exceed three coats in total (taking into account the existing coating and new coating). Also refer section 7 Application as this section also applies to recoating an existing application.

Soft rubber tyres, such as forklift tyres, may mark HARDCOAT if allowed to skid on the treated surface.

General Precautions

- 6.6 HARDCOAT is not a waterproof membrane and is not to be used as a sealer in structures containing water.
- 6.7 HARDCOAT contains a mixture of aromatic hydrocarbon solvents and must be handled with care. Use in well ventilated areas. Avoid inhalation of fumes. Highly flammable do not smoke. Keep containers sealed and away from ignition sources and heat. Wear protective clothing and avoid skin contact. If applied indoors, the area must be well ventilated and if necessary, wear self-contained breathing apparatus. If using fans for ventilation, ensure they are of a type that cannot generate sparks. Read and follow all details on the product label and safety label before use. Refer to Product Safety Data Sheet for complete handling and safety information.

7.0 APPLICATION INSTRUCTIONS (read in conjunction with product label)

- 7.1 The surface to be treated must be clean and dry prior to application (i.e. uncoated and unsoiled). Stains, oil, grease and any other surface contaminants or coatings must be removed. Old stains not removed from the surface will be visible after the film dries and difficult to remove as they will be trapped under the coating.
- 7.2 **New concrete:** Allow concrete to hydrate and dry for at least 14 days, preferably 28 days. Filmforming curing compounds must be removed before application of HARDCOAT.
- 7.3 **New and Existing concrete:** Very dense concrete surfaces should be 'deglazed' by washing with a dilute solution of Hydrochloric or MISTIC Acid, washed thoroughly to remove all acid and allowed to dry. HARDCOAT is not suitable for application to non-porous surfaces, including glazed surfaces such as ceramic tiles, where it cannot penetrate the substrate.



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TECHNICAL DATA (continued)

APPLICATION INSTRUCTIONS (continued)

- 7.4 Porous and/or coloured concrete pavers should be washed with MISTIC ACID, rinsed well and allowed to dry before applying HARDCOAT.
- 7.5 The surface must be as dry as possible to permit maximum penetration of HARDCOAT. Do not apply outdoors if rain or dew is likely within 12 hours of application. Wet or damp substrates or substrates with excessive moisture content (see section 6.0) or exposure to rain or dew can cause adhesion problems or discolouration (white or cloudy appearance).
- 7.6 Read and follow the instructions under section 6.0 before proceeding with application. Apply one coat as supplied. Use a solvent resistant roller (long nap for very rough surfaces such as exposed aggregate), brush or airless sprayer to apply. Allow to dry and assess whether the finish is as desired. If deemed necessary, apply a second coat, allow to dry and reassess. Two thin coats will give superior performance to one thick coat. If absolutely necessary, a third coat may be applied depending on substrate porosity and requirements. Apply the additional coat to the test area but bear in mind the warnings about excessive moisture in the slab substrate given in the "Stratmore Guide to Sealing Concrete". Allow to dry completely, then check if resulting appearance is acceptable. Beware of over-application as it may result in reduced ability to allow water vapour to diffuse out of the concrete and lead to blushing or blooming. If applying by roller, use a brush to "mop up" excess material in grooves, pores and other imperfections. Do not allow excess material to pool.
- 7.7 **Application of additional coats**: Each coat must be completely dry before application of another coat. Usually 12 hours is sufficient under good drying conditions (warm weather and air movement).
- 7.8 Finished application must be completely dry before opening to foot or vehicle traffic. This is a minimum of 12 hours from application of the last coat, preferably overnight. Protect application from rain, water, dew, etc. until completely dry.

Clean up with HARDCOAT Solvent or Xylene.

8.0 PACKAGING

4, 20 and 200 litres.



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