

Typical technical specification clauses for STAIN-PROOF

1 - GENERAL

1.1 Scope

The material to be supplied under this Contract shall be applied to specified porous building materials including: concrete, terracotta tile, cast stone, pavers, sandstone, limestone, brick, marble, granite and grout surfaces. It protects treated areas from the ingress of water, water-borne salts and oil-based staining. The material shall be designed to impregnate the surfaces and permanently bond to the molecular structure of the material, thus changing its absorption characteristics.

Impregnation shall be carried out on surfaces described in the Contract. All works shall be in accordance with relevant Occupational Health and Safety requirements.

2 - MATERIAL

2.1 Type

The material for impregnation shall be STAIN-PROOF as supplied by Dry-Treat, or its authorized Agent. The material shall contain not less than 50 per cent active ingredient and shall not be diluted by solvent or any other fluid.

2.2 Properties and Certificate

Prior to the impregnation works the Supplier of the Material shall deliver to site sufficient material to carry out the entire works. The Supplier of the Material shall provide to the Superintendent, on delivery, a certificate from Dry-Treat, or its authorized Agent, that the material is STAIN-PROOF and the quantity delivered to site. No material shall be used on site until this certificate has been provided and accepted by the Superintendent.

2.3 Storage

The material shall be stored in a cool, dry area protected from direct sunlight. The containers are to be kept sealed and protected from damp. The area shall display any required Occupational Health and Safety signs.

2.4 Handling of Containers

The material containers shall remain sealed until their contents are required for use. The contents of any opened containers shall be either used within 72 hours or immediately decanted into one, five or 20 litre minimum 0.43 mm gauge steel drums and air tight sealed. If the material is contaminated it shall be discarded.

3 - SPRAY EQUIPMENT

3.1 Method of Delivery

The material should be applied with a continuously circulating airless pump system with a large bore wand plus a nozzle with a 60° fan tip, providing a nozzle pressure not greater than 70 kPa. Water shall be prevented from entering any part of the system.

For small areas a low-pressure airless spray unit such as a garden-type hand pump or lambs wool applicator, or similar, is suitable.

4 - SURFACE CONDITIONS

Surfaces to be impregnated shall be sound, air-dry and clean. Surfaces shall be free from loose matter and residues.

4.1 Cleaning

If cleaning by water methods, the surfaces shall be allowed to stand for a minimum of 24 hours before impregnation commences. Areas to be treated shall, where necessary, be protected from adverse weather conditions and shall be surface dry for a minimum of 24 hours before application commences. Artificial drying of the surface shall not be permitted.

4.2 Adhesive Strength

The clean substrate is suitable for treatment with STAIN-PROOF when an adhesive strength of 0.6 N/mm² has been reached.

4.3 After Treatment

The treated surface must be left undisturbed (no rain or condensation) as long as possible and for a minimum six hours, to ensure proper curing before application of next coat.

5 - APPLICATION

5.1 Application method

- Always test product on a small area first and allow a 24-hour cure time to determine the ease of application and desired results.
- Generously saturate the surface with product using a low-pressure hand spray, a clean brush, or similar. Surfaces should have a mirror-like "wet" look for three to five seconds.
- Avoid contact with surrounding areas.
- After 10 minutes, generously saturate the surface with product using a low-pressure hand spray, a clean brush, or similar. Surfaces should have a mirror-like "wet" look for three to five seconds.
- Allow 10 minutes for product to penetrate, then polish surface with a clean white dry cloth to remove excess product.

5.2 Application Rate

One or more applications, with a minimum interval between coats of at least 10 minutes, shall be made each at the coverage rate of one litre per two to eight square metres (80 to 320 sq.ft. per US gallon), depending on absorbency. Allow 10 minutes for STAIN-PROOF to soak in then lift excess product with a clean white dry cloth.

On very absorbent surfaces the use of Dry-Treat's pre-sealer WATER REPELLA, used in accordance with its printed label, may reduce the amount of STAIN-PROOF required and give a more uniform seal.

5.3 Testing of Material

During application Dry-Treat, or its authorized Agent, shall, when requested, provide to the Superintendent samples from the spray nozzle. This shall be tested to confirm the relative density value as stated in the material conformity certificate.

5.4 Temperature & Weather Conditions

The outdoor temperature and the temperature of the substrate shall be within the range of five to 35 C° (40 to 95 F°). Impregnation shall not be carried out in rain or

strong winds. Do not apply if rain is forecast within six hours following the application.

5.5 Protection

Avoid contact with surrounding areas. Bearings, painted steel surfaces, plastic, exposed bituminous materials and joint sealants adjacent to members to be impregnated shall be masked-off before impregnation. Members shall be protected from rain and traffic spray during application and for at least six hours after completion. Plants in the vicinity shall be protected against contact with the material. Any residue formed by the material on glass, wood or metal by contact shall be removed immediately by an alcohol based cleaning agent.

6 - TRIAL APPLICATION AREA & SAMPLING

6.1 Location

At least two control areas, each of not less than one square metre, shall be selected on the structure to be treated and marked out. One area shall have the material applied with a representative of Dry-Treat, or its authorised Agent, in attendance. The other area is to remain untreated and used as a control. The location of the test areas shall be decided by the Superintendent and for comparison purposes will be at locations that are subjected to similar environment conditions.

Once application on the control area(s) is complete then test for the Depth of Penetration. The Depth of Penetration shall be determined using the method set out in Clauses 6.3.

When standards have been confirmed the contractor shall provide to the Superintendent, before the works commence, written confirmation from Dry-Treat (Australia) Pty Ltd, or its authorised Agent, that the works will be warranted to meet those standards.

6.2 Method of Sampling

The method of sampling shall be the same for all test procedures, and shall be as follows:

After a minimum of 7 days following the last application of STAIN-PROOF, 50 mm internal diameter cores shall be cut through the treated surface ensuring that the core is perpendicular to the surface.

The depth of cut shall be 40 mm (+/- 5mm). Whenever possible, coring shall be carried out using a vacuum-clamped coring machine. Where metallic fixings are used they shall be removed subsequent to coring. Fixing holes and core holes shall be made good using an approved repair procedure.

The core shall be removed, sealed in a plastic bag, labeled and sent to an approved laboratory for testing.

6.3 Testing for Depth of Penetration by Dye Treatment

The following test procedure shall be used to determine the actual depth of penetration of the treatment:

Test cores shall be obtained as per the procedure in Clause 6.2.

The cores shall be oven dried for 24 hours at 40 C.

The core shall be split diametrically and the split face sprayed with a water-based fugitive dye.

The area not absorbing dye indicates the zone of treatment.

The minimum distance from the interface of the dyed concrete shall be recorded. This distance shall be deemed to be the depth of penetration of the applied treatment. Should difficulty be encountered in distinguishing this interface a petrographic microscope shall be used.

6.4 Acceptability of Tests

On completion of the works the Superintendent shall mark at 300 sq.m. for a sample core to be tested for the depth of penetration. In any area where the treatment falls below the control standard, that area is to be retreated at the contractor's expense. If more than 30 per cent of the tests fall below the control standard, the entire structure shall be retreated at the contractor's expense.

7 - WARRANTY

7.1 Requirement

A Performance Warranty of up to 15 years is provided when the product is applied by an Accredited Applicator following our written instructions and the surface is maintained using the Dry-Treat's Recommended Maintenance System:

- Mop up any spills immediately.
- Spot clean using diluted acid-free bleach, or similar.
- Apply S-P CLEANER weekly in accordance with the instructions on the label. This cleaner helps remove soiling whilst enhancing resistance to stains. Other neutral cleaners may be used between S-P CLEANER applications.
- Scrub surfaces once every two weeks with a strong cleaner such as diluted acid-free bleach, or similar.

8 - SAFETY ASPECTS

8.1 Fire Fighting

The STAIN-PROOF material is a combustible liquid. Open flames, sparks and heat must be avoided. Smoking is prohibited during application. Foam, water-spray, carbon dioxide and dry chemical extinguishers are suitable fire fighting equipment.

8.2 Contact

Contact with the skin and eyes must be avoided. Vapours from the material or aerosols are harmful and should not be inhaled.

8.3 Respirators

Use only in well-ventilated areas. If ventilation is inadequate use organic vapour respirators where vapours or aerosols occur and, where ventilation is inadequate, use a positive pressure respirator.

8.4 Eye & Skin Contact

Use safety goggles and rubber gloves. After contact with eyes, skin or clothing, rinse out immediately with a large quantity of water and consult an eye specialist.

8.5 Spillage

After spillage do not allow the material to get into the sewerage or ground water systems. Dam the liquid in with sand and absorb with a suitable binder such as saw-dust and take up mechanically.

8.6 Transport

Flash point: 13 C°, Proper shipping name: alcohols n.o.s., DG Class 3, UN # 1987, PG II, HAZCEM: 3[Y]E.

9 - LIMITATIONS

Product will not prevent surface etching or wear and may lighten or darken some surfaces. All stains should be cleaned-up immediately to minimise absorption.