COLORO™

PRODUCT DATA SHEET

DUSTPROOF

DESCRIPTION

DUSTPROOF is a proprietary blend of silica (Si) polymers which penetrate concrete surfaces providing an increase in abrasion resistance and a reduction in the surface absorption of liquids.

The Silicate compounds present in DUSTPROOF each play a unique role in densifying concrete.

The silicates in DUSTPROOF chemically react with calcium hydroxide (also known as portlandite) in the surface to produce calcium silicate hydrate (CSH) – the primary strength-providing portion of concrete paste.

Portlandite is a soft, porous mineral that is subject to carbonation and chemical attack, so replacing it with the much stronger CSH is a major benefit DUSTPROOF.

The ultimate result is a concrete floor that is harder and exceptionally dense which equals long-lasting protection and durability.

DUSTPROOF is water based. It generally dries tack free in 2 to 4 hours at 21□C @ 50% RH.

PRIMARY APPLICATIONS

- Dustproofing
- Repair of rain damaged surfaces
- Repair/reinstatement of weak mortar
- Repair/restoration old carbonated concrete
- Interior / exterior
- Warehouse /Commercial floors
- Manufacturing plants
- Residential garages and basements

ADVANTAGES OF USE

- Reduces porosity, dustproof and increases hardness of the concrete surface
- Combines with the concrete becoming part of the matrix and lasts the lifetime of the substrate.
- Complies with GREEN STAR- OFFICE DESIGN V3 IEQ-13
- Resists penetration of oil and many chemicals
- Reduces the ingress of carbon dioxide and resulting carbonation (degradation of the substrate)
- Minimizes tyre marks and enables them to be more easily removed
- Equipment can be cleaned with water
- Can be applied to fresh, new, or existing concrete
- Will not blush
- After Trades compatible (can be over tiled or line marked #)
- Compatible with bond breakers for tilt-up projects.
- ‘Cure’ * and seal capability

TECHNICAL INFORMATION

Typical Performance

Drying Time:

Light Foot Traffic.....4-6 hours

Wheel Traffic.....24 hours

Shelf Life: 2 years in original, unopened package.

APPEARANCE

DUSTPROOF is a clear liquid which dries transparently.

After placing, the color of the concrete may initially appear darker than the surrounding concrete.

As the sealer cures and dries out, the treated concrete will gradually increase in tightness and impermeability to oils and water. This process is likely to take 24-72hours.

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COVERAGE

One litre of DUSTPROOF will cover 4-5 m2 /litre of steel trowelled surface depending on the porosity of that surface.

When DUSTPROOF is used as the final treatment on a metallic or mineral aggregate hardened surface, the coverage may be greater than indicated above.

For other concrete floors coverage is still dependent upon the final surface texture and its condition.

NEW CONCRETE

DUSTPROOF can be used for new concrete using TRADITIONAL CURING METHODS OR can be used at TIME OF POUR AS A 'CURING & DENSIFYING' COMPOUND.

The difference being DUSTPROOF will accept after trades procedures viz. tiles, carpet adhesives etc. Individual testing of products should still be undertaken as we cannot guarantee 3rd party supplied products.

TIME OF POUR PROCEDURE

Slab Preparation - Finish the surface with equipment required to present necessary outcome, e.g. power screed, or broom etc.

Ensure during this process, the issue of plastic shrinkage is addressed by using A-Film, an aliphatic alcohol evaporation retarder.

APPLICATION

Apply DUSTPROOF as soon as practicable following the finishing operation, or as soon as the surface is firm enough to walk on, certainly prior to hairline and temperature cracking.

Apply DUSTPROOF at the suggested rate (5m2/L) with a broom or low-pressure sprayer.

Application using a low pressure, high-volume pump that will dispense material at 250-500kPa and roughly 10 - 20 L per minute is recommended.

Keep the entire surface wet with DUSTPROOF for 30 minutes, working it into the concrete surface with a soft-bristled broom.

As the DUSTPROOF becomes slippery underfoot, lightly mist the surface with water.

As it again becomes slippery underfoot, thoroughly flush the entire surface with water and squeegee it completely dry to remove all surface alkali and/or DUSTPROOF residue.

On exterior broom-finished surfaces, no flushing is required, but any remaining DUSTPROOF must be squeegeed or broom-swept from the surface after 30 - 40 minutes.

Vacuum or squeegee to remove any excess material.

Continue until the entire floor has been treated.

Once all excess DUSTPROOF has been removed, and the surface has dried (approximately 2 hours) SURFACE CURE R can be applied if a curing agent compliant with AS 3799 is required.

Newly placed concrete requires the normal hardening period. Allow 4 weeks for proper curing before applying paint or covering.

When the owner is ready to take occupancy of the building, but before equipment is placed on the floor, an additional application of DUSTPROOF may be undertaken, however the removal of the curing agent must be undertaken prior to ensure success.

An additional coat of DUSTPROOF will increase the chemical and wear resistance of the concrete surface.

Soft-Cut Saw Joints-If the floor joints are cut using the Soft-Cut saw method, treat the floor surface with DUSTPROOF (including flooding the joints) after the saw cutting operation.

The applicator should be sure the excess cement dust remaining after saw-cutting has been removed from the concrete surface prior to application of DUSTPROOF.

After the slab has cured the appropriate number of days, the joints may then be cleaned a final time and the joint filler applied.

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TRADITIONAL PROCEDURE

Slab Preparation - Finish the surface with equipment required to present necessary outcome, e.g. power screed, or broom etc.

Ensure during this process, the issue of plastic shrinkage is addressed by using A-Film, an aliphatic alcohol evaporation retarder.

Surface Preparation- Cure the concrete using Surface Cure R a curing compound complying with AS3799.

For fast track projects, new concrete should cure seven (7) days minimum and adherence to Surface Cure R data sheet for removal. No residue of Surface Cure R should be present as its presence will reduce the effectiveness of the treatment.

Allow concrete to air dry a minimum of 24 hours prior to application of DUSTPROOF.

Insufficient drying of the concrete will prevent full penetration of DUSTPROOF, reducing its effectiveness.

APPLICATION

APPLICATION (EXISTING SLAB)

For best results on large areas DUSTPROOF should be applied and scrubbed using mechanical scrubbers.

Select the section of floor for the initial application.

Apply DUSTPROOF to the concrete surface in a continuous operation at a rate of approximately 5m2/litre on steel trowelled surfaces.

The liquid should be scrubbed into the surface with a mechanical scrubber.

For smaller areas and along the perimeter of the slab, application by watering-can then working in with a bristle broom is appropriate.

The scrubbing action assists DUSTPROOF in penetrating the surface.

Keep the surface wet with DUSTPROOF at all times during the application process and on porous slabs, several repeated applications may be necessary to achieve an excess on the surface.

When the product thickens (but no more than 60 minutes after initial application) the surface should then be squeegeed on to the adjacent floor area next to be treated.

Continue until the entire floor area has been treated.

Vacuum or squeegee to remove all excess liquid.

The surface may be flushed with water to aid in removal of the excess material.

Apply DUSTPROOF at the suggested rate (5m2/L) by broom or low-pressure sprayer.

Keep the entire surface of the concrete wet with DUSTPROOF for a minimum of 30 minutes.

The material may be broomed around on the surface to ensure good coverage.

As the DUSTPROOF begins to thicken and gel (but no more than 60 minutes after initial application) broom and squeegee the excess material on to the adjacent floor area next to be treated. If necessary, lightly sprinkle water on the surface to aid in removal.

Continue until the entire floor has been treated. Vacuum or squeegee to remove any excess material.

EXISTING CONCRETE PROCEDURES

Surface Preparation-The concrete surface must be clean, dry, and free of any contaminant or coating.

CLEAN-UP

Clean brooms, tools and all equipment and sprayers with potable water immediately after use.

The residue from application and clean-up process is non-toxic.

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LIMITATIONS

Allow the product to dry a minimum of 4-6 hours before exposure to traffic.

- Protect DUSTPROOF from freezing. In the event of freezing, thaw and stir or agitate before using.
- Do not leave any DUSTPROOF residue on the treated concrete surface. Excess hardened material must be removed with a grinder.
- DUSTPROOF does not meet the requirements AS 3799.
- DUSTPROOF is not intended as a protection against rising damp, as the main function is dustproofing and restoration of slab abrasion resistance.
- Protect metals, glass, wood, paint, or brick from contact with DUSTPROOF. if accidentally over sprayed, wash surface with potable water IMMEDIATELY.

STORAGE

Not classified as a dangerous substance for purpose of transport. Not to be loaded with dangerous when wet substances (Class 4.3), Oxidising Agents (Class 5), or Foodstuffs. Keep containers cool and closed.

INCOMPATIBILE WITH

Class 4.3, Class 5, Class 8.

Corrodes Aluminum, copper, brass, bronze, zincs, tin & their alloys.

Will also slowly absorb carbon dioxide, forming an insoluble white gelatinous precipitate of silica.

Will gel with acids.

PACKS

5L, 20L, 200L, 1000L

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