

DENSI-PROOF™ PLUS SURFACE SHEEN

SUMMARY INFORMATION & TECHNICAL DATA



THE NAME SAYS IT ALL

Densi-Proof plus Surface Sheen is to integrally waterproof both newly-placed or already existent portland cement concrete. Densi-Proof plus Surface Sheen provides concrete with an extremely efficient chloride ion barrier, just beneath its large upper porosity, in the matrix-surface porosity transition zone, effectively preserving imbedded reinforcement steel while significantly diminishing concrete's permeability, removing the potential for hostile contaminant ingress, significantly lowering water vapor transmission, effectively preserving / enhancing the treated concrete's integrity. Densi-Proof plus Surface Sheen greatly increases surface abrasion resistance, as well as, surface acid / chemical damage resistance. Densi-Proof plus Surface Sheen penetrates extraordinarily deep into portland cement concrete, it reacts prolifically with its unbound (free) constituents, i.e., alkali and/or unactivated calcium hydroxide residue, and etc. These unique reactions prolifically convert Densi-Proof plus Surface Sheen's practically nil solids colloidal liquid into a 100%, solids, colloidal silicate precipitate (gel) that is integrally-generated, and very insoluble, instantly providing increased density, becoming an integral part of the concrete itself, occupying concrete's accessible porosity and tiny void spaces. This very unique internally-generated colloidal silicate barrier generates no heat, during its liquid to solids conversion, no expansion pressures, at any time, plus this internally-generated water / pollutant barrier permanently remains resilient, consisting of pore sizes much smaller than concrete's microporosity, significantly diminishing (concrete's permeability factor, yet still allowing concrete to breathe, expand, and contract as it needs. Densi-Proof plus Surface Sheen halts, or at least greatly retards, existent (if any) internal corrosion activity by removing corrosion's electrolyte and molecular oxygen availability. A Densi-Proof plus Surface Sheen treatment will, in general, boost concrete's overall integrity as it supplements, densifies, waterproofs, strengthens, internally detoxifies, and etc., without deleterious effect on concrete's traction quality, bondability, external appearance, or physical characteristics. Densi-Proof plus Surface Sheen is excellent as a primer for surface treatments. Densi-Proof plus Surface Sheen addresses / alleviates reasons for potential early failures of coatings adhesives, i.e., alkaline capillary

moisture, saponification, laitance effect, and etc. Since Densi-Proof plus Surface Sheen can be applied to old or new concrete without affecting its surface traction quality, it can be used for enhancing any concrete installation, whether traffic bearing, or not, i.e., traffic pavements, such as bridge decks, parking garage decks, airport pavements, tunnels, hydro dams, sidewalks, driveways, parking lots, concrete pavers, and etc. When applied, Densi-Proof plus Surface Sheen can arrest water leakage through concrete even when leak is active. In example, water storage reservoirs, water treatment tanks, below grade concrete, and etc. Densi-Proof plus Surface Sheen will migrate against flow of water, if applied on negative side (side leaking to), permanently arresting water flow through concrete, Densi-Proof plus Surface Sheen is significantly more effective / economical than trowel-on remedies. An application of Densi-Proof plus Surface Sheen will render concrete significantly more waterproof, abrasion resistant, freeze damage resistant, dust resistant, acid / chemical resistant, and etc.



Caopower South Australia used Densi-Proof plus Surface Sheen at time of pour and virtually eliminated any cracking. They have a hardened surface that protects against oil, acid attack, and is attractive and easy to clean.

Section 1 Description

Densi-Proof plus Surface Sheen is a colloidal silicate subsurface barrier, that leaves a semi-gloss finish. Densi-Proof plus Surface Sheen is milky white (dries clear) environmentally neutral, user-friendly, and contains zero VOC/VOS.

Section 2 Installation Suggestions

On Already-Set Concrete but still new or unused:

NOTE.. In hot climates, mist-wet the surface with water and remove any puddles prior to application.

Always mix thoroughly before applying, use a drill and mixing paddle.

Apply Densi-Proof plus Surface Sheen using a medium to high-pressure airless spray unit, complete with fan spray nozzle. Holding spray tip 150mm from surface, apply Densi-Proof plus Surface Sheen at minimum rate of 4.5m² per litre with an overlapping spray pattern of 50%. Begin application at the lowest elevation. For example, walls and slopes should be applied side to side, from the bottom up.

As a Cure Method:

Apply Densi-Proof plus Surface Sheen with a low-pressure non-atomizing, spray apparatus such as a pump-tank sprayer or alternatively by flooding-on and spreading evenly. Apply Densi-Proof plus Surface Sheen to the newly placed surface as soon as is practical following its surface finishing phase.

Densi-Proof plus Surface Sheen application should begin at the lowest point in elevation. For example, walls and slopes should be applied side to side, from the bottom up. Use a paint roller to redistribute any running or pooled product.

For Broom finished concrete the minimum recommended coverage is 4.5m² per litre .

For Hard or Steel troweled concrete the minimum recommended coverage rate is 6 - 8m² per litre .

Section 3 Precautions

1. Any coatings that may restrict access to the concrete's interior must be chemically or mechanically removed for Densi-Proof plus Surface Sheen to penetrate. If a drop of water does not penetrate into the surface within 2 minutes neither will Densi-Proof plus Surface Sheen
2. Protect areas not intended for coverage.
3. Use only on green (new) or recently poured, clean concrete. Densi-Proof plus Surface Sheen will seal in any visible stains and will purge any hidden contaminants to the surface while sealing them in.
4. Do Not allow Densi-Proof plus Surface Sheen to puddle or buildup can occur, causing a darkening effect or a white dried precipitate which is very difficult to remove.
5. Densi-Proof plus Surface Sheen may etch glass or dull shiny aluminum and can be difficult to remove from other surfaces once it dries.
6. Do not apply on frozen substrate or when temperature is near freezing.

7. Wait at least 24 hours before applying paint or other coatings that have been treated with Densi-Proof plus Surface Sheen. Always rinse, or wash the surface before applying to remove possible purged high alkali salts that may chemically effect the bond.
8. For more information read Material Safety Data Sheet

Section 4 Technical Data

Physical: Liquid
Colour: Cloudy white (dries clear)
Odour: None
pH: ±12
Flammability: None
Hazardous Vapours: None
Clean-up Solvent: Water
U.V. Resistance: Excellent
Surface Bond Quality: Excellent
Chloride Screen ability: Excellent
VOC/VOS Compliant: YES
User Friendly: YES

Section 5 Some Advantages

- ◆ Significantly Densifies Concrete
- ◆ Leaves a Semi-Gloss Finish
- ◆ Internally Waterproofs Concrete
- ◆ Provides a Long Lasting Shine
- ◆ Makes Concrete More Durable
- ◆ Greatly Diminishes Permeability
- ◆ Enhances Surface Traction Quality
- ◆ Greater Surface Bondability
- ◆ Provides Internal Humidity Stability
- ◆ Restricts Vapor Transmission
- ◆ Preserves Concrete's Integrity
- ◆ Eliminates Internal Water Migration
- ◆ Resists Freeze-Thaw Damage
- ◆ Easier Snow / Ice Removal
- ◆ Improves Thermal Resistance (R-Factor)
- ◆ Adds Surface Abrasion Resistance
- ◆ Decreases Dusting Potential
- ◆ Increases Acid / Chemical Resistance
- ◆ Lowers Chemical Reaction Potential
- ◆ Lowers Creep Deformation Potential
- ◆ Alleviates Carbonation Effects, If Any

Ensure you contact your nearest
PROTECT CRETE® office for full technical bulletins and
latest application procedures.