

DUROSOLAR™

SOLAR REFLECTIVE MEMBRANE COATING FOR FACADES, WALLS & FASCIAS



DESCRIPTION

DUROSOLAR is a scientifically formulated heat reflective roof, wall and façade coating system that keeps your inhouse temperature cooler and also acts as a waterproofing membrane.

DUROSOLAR works by reflecting more of the sun's radiations at the roof or wall surface than other coatings, and this translates into reduced heat flow to occupancy zones. The benefits are reduced electricity usage, less heat transfer into buildings, and lower energy demand for air conditioning. Reduced heat build up can also prolong the life of building materials beneath the coatings by reduced thermal cycling and slowing chemical ageing.

FEATURES

- Solar reflectance and waterproofing in the one product
- Reduction of in-house temperatures by up to 10°C
- Lower energy demand thus reduced electricity usage
- Water based 100% acrylic, UV stable and weather resistant.
- Matches to most roofing colours
- Permanently flexible with low dirt pick up
- Protects concrete against damage by carbon dioxide, water and chlorides.
- Application by brush roller and airless spray
- Good crack bridging capability
- Tropical level of mould, fungi, bacteria and algae resistance
- Environmentally friendly, low odour and VOC compliant
- Excellent adhesion to concrete, fibrous cement, timber water based paints, aged gal., PVC, timber, metal roofing, aged alkyd and bitumen roof membranes.

PACKAGING

- 15 Ltr. Drum = 16.5 kg

SRI INDEX RATING

- White - SRI 90
- Surfmist grey - STI 71

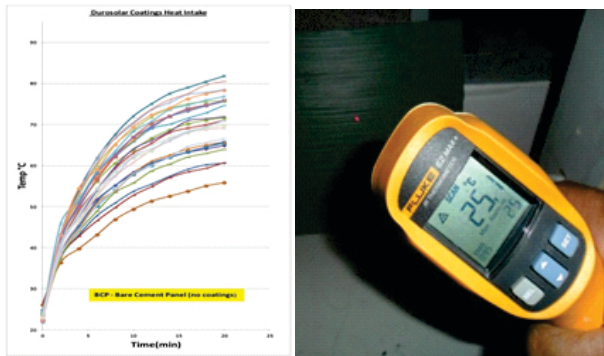
TECHNICAL INFORMATION

Colour	Match to most roofing colours in low sheen. Contact Durotech if specific or dark colours are specified.
Dry Time	Touch dry 1-2 hours @ 25°C
Recoat Time	4-6 hours @ 25°C
Wet/Dry film per coat:	240/100 microns
Coverage	Min. 2 coats, 3/4m ² /liter/coat
Elongation @ break	>300% at 25°C
Tensile Strength	> 1.7MPa, white
Solids Content	58-61%, white
Water vapour permeability, SD	Class II (medium 0.14-1.4 m), ISO 7783-2
Water absorption, W24	<0.1 kg/m ² h0.5 Class III (low), ISO 1062-3
VOC:	40 grams/litre, SCAQMD Method 304-91
Storage	min. 12 months, unopened and stored@ 20°C
Total Solar Reflectance:	30-90%(ASTM C1549) depends on colours
Thermal Emittance	0.88-0.92 (ASTM C1371)

USE AREA

- Concrete, brick, blockwork, render walls and facades, concrete roof tiles
- Bitumen roof top coating
- As a Solar Reflective colour topcoat for Durorroof, Duromastic AC & P15.





SURFACE PREPARATION

All surfaces shall be sound, clean, dry and free of release curing agents, laitance, efflorescence, oils, bird droppings, mould, algae and other contaminants. Inspect roof tiles/concrete for condition. Replace any cracked and damaged tiles. Check adhesion by applying to a test area. Concrete, blockwork and cement render should be at least 28 days old, dry and free of voids and other surface defects. Make sure painted surfaces are sound and remove any chalking by high pressure water wash or a 'sugar soap' detergent wash. For mould, fungi and algae affected areas pressure spray and then treat with Duroprep Antifungal Concentrate to destroy fungal spores and algae remains.

PRIMING

DUROSOLAR is able to be 1/3rd diluted with water and used as Primer. Prime absorbent surfaces with Durotech ARW. For weakly bound chalky surfaces that require strengthening, prime with Durotech AR. Treat rusted metal with Durotech ZR (refer to TDS). Treat the top of cement rendered parapet and balcony walls with Durotech AR or Duromix™ Hibuild WBE.

For surfaces that are extensively cracked but still adhering well, Durorof may be applied as a basecoat. Alternatively, incorporate Durotech polyester reinforcing fabric. For substrates suspected of damp, apply Duromix™ Hibuild WBE, but seek technical advice first.

APPLICATION

Product should be thoroughly mixed prior to use but do not over mix. The product can be applied by brush, roll & spray. Apply film build as recommended.

For spray application the recommended system is an airless spray system using a piston pump. The recommended spray tip is a 19 to 21 thou (thousands of an inch) fan type. The pump can be electric or driven by compressed air, and needs to produce a pressure of about 3000 psi.

For joints subject to movement, seal with Durotech PU sealant. Contact Durotech beforehand for technical details. To reinforce joints and cracks, apply a first coat of DUROSOLAR by brush or roller to about a metre length of the prepared and sealed joint. Immediately lay 150mm to 200mm wide reinforcing fabric into the wet surface. Then apply another coat and work in carefully in one direction by brush or roller to saturate the fabric, before moving onto the next section of the joint. Minimum 2 coats of 80 microns dry required.

PRECAUTIONS

Do not apply water-based primers or DUROSOLAR below 10°C ambient. Do not apply DUROSOLAR above 30°C or in hot windy conditions, or if rain is likely within 6 hours. In summer apply in the cooler part of the day. Be sure coating is cured before contact with water. Wash equipment with water before dry. Do not expose to solvents. Clean periodically to maintain surface and re-coat when necessary. If ambient temperature over 30°C, cooling hot surface with water spray before painting.

CLEANUP Use tap water before material has set. Soften cured material with mineral turps.

SAFETY Avoid breathing vapours and contact with skin and eyes. Wear gloves and protective clothing are recommended.

FIRST AID: In case of contact rinse immediately with plenty of water.

SPILLS: Contain spill and prevent entry into to waterways. Refer to Durotech Safety Datasheet before use.

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