DANI CHEMICALS CO.
A CLASS OF IT'S OWN

Dani Roof Shield

Seamless & Elastomeric Waterproofing Membrane

Description

DANI ROOF SHIELD IS AN ELASTOMERIC, SINGLE PACK WATERPROOFING COMPOUND BASED ON SPECIAL STYRENE COPOLYMERS. IT IS IDEAL FOR SUBSTRATES WHICH REQUIRE A SEAMLESS, JOINT FREE, WATER TIGHT AND WEATHER RESISTANT ELASTIC MEMBRANE.

USES

- Waterproofing of roofs, planter boxes foundations, retaining walls, etc
- As an industrial protective coating for walls in factories, ware houses, etc
- Waterproof membrane in sandwich construction
- Protection to below ground concrete elements
- Moisture and vapor barrier external coating for walls

COLOURS

Dani Roof Shield is available in white and grey colours. Other colours available on request (for large orders only).

PACKING

20 Kg Bucket

TECHNICAL DATA

- Colour: Grey/White
- Solid Content %: 52 (+/- 1)
- Flash Point: Non-flammable
- Service Temp: -5oC to +100oC
- Elongation: 400%
- Tensile Strength ASTM D-412: 295 kgf/cm2
- Hardness Shore "A": 68
- UV Resistance: 10,000 hours No deterioration
- Peel Adhesion: 65 lb/inch 2
- Viscosity, CPS: 50,000-70,000

STORAGE

Keep away from direct sunlight and preferably store below +35 oC and above 5 oC. Protect from frost.

METHOD STATEMENT GENERAL

This method statement covers waterproofing system intended to be carried out on reinforced concrete roof slabs.

ADVANTAGES

- Suitable for application over concrete, wood, metal, asbestos or asphalt roofs
- Excellent protection for pipelines, grain soils, etc.
- Will waterproof existing asphalt roofs which are severely weathered, cracked and leaking.
- Storage life in excess of twelve months.
- One part product - easy to stir & apply.
- Unaffected by transportation.
- Can be applied by brush, roller or spray.
- Perfect adherence on all clean substrates.
- Completely nonflammable (non flash point).
- No risk of creep due to hot weather or mechanical stress or oxidization. Withstands temperatures from-5 oC to + 100 oC.
- Completely water tight after drying even then immersed.
- Uniform and flexible film.
- Imparts no taste, odour or color to products which come in contact.
- High stretch & tear resistant.
- Accepts light foot traffic.
- Resistant to aging & UV radiation.

RECOMMENDED COVERAGE

In general, one Primer coat and two neat coats are applied for all waterproofing applications, consuming 1.20 kg per square meter.

CLEANING OF TOOLS

Clean tools immediately after use with water; keep brushes or rollers dipping in water during applications. Hardened Dani Roof Shield needs physical scrapping.

RECOMMENDATIONS & PRECAUTIONS

- Stir contents or roll drums prior to use
- Do not apply on water logged surfaces
- Do not apply when rain is imminent
- Bitumen or asphalt surfaces should be totally dry at the time of application
- Application of too thick coats may result in reduced elasticity and possible cracking of film
- The concrete surface to which Dani Roof Shield is to be applied must be 28 days old and free from entrapped moisture
- Dani Roof Shield is a non-hazardous and non-toxic emulsion, however harmful if swallowed. Avoid contact with eyes, wash with plenty of water and seek medical advice.

MATERIALS

The insulation and waterproofing of the entire roof top including parapet walls and adjoining structures shall be carried out. The colour of the coating shall be grey or white; recommended using separate colour for each coat to ensure both the coats have been applied. Dani Roof Shield should be properly stored in a clean, covered area and should be kept away from heat or direct sunlight.

APPLICATION

Waterproofing should be carried out in strict conformity with the manufacturer's instructions, as laid hereunder. All surfaces to be waterproofed must be properly prepared by brushing, cleaning and leaving the surface free from dirt, dust, grease, loose or projecting particles of mortar or concrete. Old waterproofing system, if any should be totally scraped and all traces of salt must be thoroughly cleaned by spraying with water from the surface before the application of the priming coat. The waterproofing system shall be laid to drain water freely into the rain water outlets. The roof slope must be checked and any depressions should be made good by filling with cement sand mortar or laying of a cement sand mortar or laying of a cement sand screed, as directed by the Consultant's or Client's Engineer. Inspect the entire area and chip out all protrusions, irregularities, loose materials, etc. Widen all visible cracks and holes to a minimum 25mm width/depth and fill with a cement sand mortar. Hairline cracks and pinholes on sound surfaces can be left untreated. At the end of preparatory works, pressure wash the entire floor with clean water to remove all surface dust, etc. Note: In case the substrate is found too rough, the surface should be leveled and made good by plastering on vertical sections and laying of a rich mix 2-3cms thick cement sand screed to the roof top. A cement sand triangular fillet measuring 5cms x 5cms shall be formed at the junction of wall and floor throughout the perimeter of the roof. Priming: Stir well Dani Roof Shield before use. Prior to application of Primer the surface must be completely dry. Prepare a Primer by 80% Dani Roof Shield and 20% Sweet Water, volume using an electric drill with a fan type paddle. Apply by roller to clean dry surface ensuring no portion is left untreated. Remove any puddles of Primer from surface. Primer should be applied to vertical surfaces and arises prior to priming the horizontal substrate. Coating: Using an electric drill with a fan type paddle attachment, stir entire contents of Dani Roof Shield in its original container for 2 to 3 minutes and empty in a flat metal tray to facilitate roller application. Dani Roof Shield can also be applied by brush or spray. Application rate shall be 2 coats at 0.50 kg per square meter. Minimum re-coating period shall be 24 hours. In very humid conditions or cold weather the interval should be increased to 48 hours. Vertical surfaces: Dani Roof Shield shall first be applied on walls, columns and other vertical substrates up to a height of 200mm using a roller; a wide emulsion brush shall be used to coat hard to reach areas by roller. No primed surface should be visible after the first coat (it implies too thin coating and inadequate coverage) and hairline cracks, pinholes and rough spots shall be well covered. Coating shall extend about 200mm onto pipes, ladder brackets and other protruding vertical objects. Horizontal surfaces: Before starting the first coat, ensure that floors are inspected and cleaned to remove all dirt and contamination from foot traffic, tools and equipment spilled material (specially near walls and

columns), etc. Starting from the far end, application by roller should be made section by section as the coating operation moves out. On floors the material is best applied by pouring the stirred Dani Roof Shield over a designated area and spreading with a roller to obtain an even finish. No foot traffic shall be allowed over the treated area for 24 hours between coats and for 3 days after the final coat. The second coat shall be applied after a minimum of 24 hours. In very humid conditions or cold weather the interval should be increased to 48 hours.

✦ TESTING

The roof surfaces shall be tested for water tightness by closing drains and flooding the roof top with a 5 cms thick water bed for a period of 24 hours. The test shall be carried out after a period of seven days after applying the final coat of Dani Roof Shield.
The Dani Roof Shield waterproofing system shall be guaranteed for a period of 7 years against leakage, seepage through the waterproofing system.

✦ SPECIAL INSTRUCTIONS TERRAZZO TILED ROOF

- Clean and repair damaged tiles and fill all joints with cement sand mortar flush with surface
- Continue with waterproofing as stated in the “Method Statement”, above

✦ SPECIAL INSTRUCTIONS METAL ROOFS

- Wire brush to remove moss, rust and loose paint (if any). De-rust corroded areas by mechanical means and clean using a brush prior to priming.
- Continue with waterproofing as stated in the “Method Statement”, above Note: Normally, metal roofs are sloped and have no parapet walls.

✦ SPECIAL INSTRUCTIONS OLD BITUMINOUS SURFACES

- Old asphalt surfaces and bituminous roofing felt systems. Cut felt blisters cross wise, dry and re-bond with suitable adhesive, preferably quick hardening hot melt bitumen
- On asphalt surfaces the quality of bitumen must be checked. In case of a low grade bitumen/asphalt with low melting point or a soft grade is found, the entire coating must be totally scrapped and roof cleaned as far as possible
- Once the roof surface has been prepared as above, Continue with waterproofing as stated in the “Method Statement” (above).

✦ ALGAE OR FUNGAL REMOVAL

Should be roof be affected with algae or fungal growth, use a stiff brush to remove this contamination and wash the surface and leave it to dry.

✦ MECHANICAL PROTECTION

Roofs subject to frequent foot traffic, it is advisable to lay cement concrete tiles in the regular path to provide a walkway for the maintenance personnel. Recommended size of cement concrete tiles is 40cms x 40cms. Other roofs waterproofed with Dani Roof Shield intended to be used as terrace must be protected by a cement sand screed in order to avoid damage to the waterproof coating.