

T-GUARD[®] BC

High Build, Chemical Resistant, Bituminous Waterproof Coating



T-GUARD[®] BC coating is based on raw materials which are amongst the most water and water-vapour resistant surface coating materials available. They are also resistant to a wide range of chemical attack.

Specially selected bitumens are blended to produce various grades, each designed to provide the best possible protective coating for its practical purpose.

T-GUARD[®] BC incorporates fibres which give body to the film and act as reinforcement in the coating, eliminating cracking and crazing under conditions of thermal movement.

Uses

- Horizontal and vertical damp-proof membranes in sandwich construction for floors, walls and roofs.
- Internal lining of water storage tanks including for potable water. External treatment of below ground structures against water ingress and attack by aggressive ground water.

Benefits

- **Easy to Use:** Simple brush or trowel application
- **Cold Applied:** No heating or dangerous handling
- **Liquid Membranes:** Can be applied to rough & contoured surfaces.
- **No Joints:** Continuous unbroken film.
- **Non Toxic:** Safe with drinking water.

Technical Support

An experienced technical advisory team is available to give technical service on request.

Standards Compliance

T-GUARD[®] BC coating complies with IS:9862-1981 specification for ready mixed paint, brush applied bituminous, black, lead-free, acid, alkali, water and chloride resistant.

They also meet the requirements for coatings suitable for use on surfaces in contact with potable water- tested by Public Health Institute, Bangalore.

Properties

The following results have been obtained under laboratory conditions and may slightly vary from those achieved at site.

Density of Primer	0.9-1.0 gm/cc
Density of Top Coat	0.95-0.97 gm/cc
Adhesion Bond Strength to Concrete (ASTM D 4541)	>3 N/mm ²
Water Absorption (ASTM D 570)	<5%
Elongation (ASTM D 638)	>5%
Chloride Resistance (IS 9862)	No cracking or blister on film
Acid & Alkali Resistance	No change in appearance or any discolouration
Solid Content in Primer	45±3%
Solid Content in Top Coat	67±2%
Touch Dry Time in Primer	Approx. 30 minutes
Touch Dry Time in Top Coat	Approx. 30 minutes

Instructions for Use

Surface Preparation

Preparation of surfaces prior to the application of T-GUARD[®] BC is most important.

Surface must be clean and dry and all loosely adhering particles such as rust, mill scale, soft mortar, cement laitance or old coatings must be carefully and thoroughly removed by wire brush and/or using etching agent. All dust must be removed by soft brushing. Surfaces must also be free from oil or grease.

T-GUARD[®] BC coating should not be applied to surfaces which are wet. In such cases, Thermax should be consulted for alternative treatments.

Priming

All surfaces should first be primed with one full coat of T-GUARD[®] BC to ensure the adhesion of subsequent coats of either T-GUARD[®] BCP or T-GUARD[®] BC. The coverage obtained with priming coat of T-GUARD[®] BCP will vary considerably with nature and porosity of the substrate but will typically be in the range of 4.0 to 6.0 sq.m/litre.

To determine if one coat is sufficient, it is best judged by the colour after drying. If a dense and even black coating is obtained, the surface may be adequately primed irrespective of coverage obtained. If the coating is patchy in appearance, then a further coat is necessary to ensure satisfactory priming. Over coating Once the priming coat of T-GUARD[®] BCP is dry, it may be over coated with either further coats of T-GUARD[®] BCP primer or T-GUARD[®] BC according to the requirements, allowing each to dry completely before applying the next.

Important

1. Each successive coat must be applied at right angles to the previous one to ensure efficient filling to brush marks and low spot and a satisfactory overall film thickness.

Medium stiffness bristle brushes are recommended for both T-GUARD[®] BCP and T-GUARD[®] BC but should not be too stiff as to cause grooving of the film.

In case where a very heavy bodied coat is required, T-GUARD[®] BC 130 may be used and can be applied with a steel trowel.

2. T-GUARD[®] BCP and T-GUARD[®] BC must be brushed and not allowed to form pools in hollows.

Drying Times

Under warm dry conditions where good ventilation and air circulation exists, drying of both T-GUARD[®] BCP and T-GUARD[®] BC is fairly rapid. Typically 4 to 8 hours in cool or very humid weather, e.g., during monsoon, or in enclosed tanks or spaces with little ventilation or air flow, 24 hours or even more may be required before each coat is dry.

Cracks and Joints: Effective coating over cracks and joints in the substrate is dependent upon their size and extent and whether they are liable to further movement.

Hair-line Cracks: Fine hair-line cracks which are confined to the surface of the substrate only, can generally be sealed with a combination of one coat of T-GUARD[®] BCP followed by two coats of T-GUARD[®] BC.

T-GUARD[®] BCP and BC are not recommended in cases of moving & dynamic cracks.

Structural Joints: In all structures where it is required to coat over the intersection between vertical walls and base

slabs, or between adjacent walls, special care should be taken.

Where such intersections form a right angle, it is recommended that, after first priming with BCP or T-GUARD[®] BC, a fillet should be provided at the intersection.

Covings

The junction between concrete slab and parapet wall shall be treated with polymer modified mortar.

Mortar Toppings

T-GUARD[®] BCP and BC membranes are to be covered with either concrete or sand/cement layer or tiles are to be bedded on mortar. The final coat of T-GUARD[®] BC, while still wet, should be sprinkled liberally with 3mm clean grit (Not sand or dusty aggregate).

Vertical Plastering

If a complete sandwich construction, such as an inner lining wall of bricks, blocks or poured concrete is intended, then it is necessary to provide a mechanical key for plastering.

Cleaning

Tools and equipment should be scraped as clean as possible and all remaining T-GUARD[®] BCP and BC must be removed with white spirit or kerosene. Spillages of T-GUARD[®] BCP and BC should be covered with sand or sawdust and later removed as far as possible by scraping. The use of solvent is not recommended as this may extend the risk of staining.

Typical Applications

T-GUARD[®] BCP and BC have a wide range of uses and there are few buildings or other structures where they may not be used in some part of the construction to meet a specification or overcome a problem, where a water resistant membrane is required. The typical applications are:

External tanking of new constructions below ground to inhibit ingress of water, or protection of concrete against sulphate bearing or ground water with other aggressive agents.

Basements and Foundations: Internal tanking of existing below ground structure in seasonal situations.

Ground Floors: Horizontal DPC courses in concrete sandwich constructions to prevent rising damp through floors and walls.

Construction Joints: Coating of joint faces in concrete floor and wall before placing concrete.

Bathrooms: Tanking membranes below entire floor tiling or screeds and inside W/C floor recesses, to prevent downward leakage.

Roofs and Balconies: DPC membranes laid through sandwich slab constructions and parapet wall to arrest downward ingress of water.

Water Tanks: Internal water resistant tiling. Also to protect the concrete against effects of chlorinated water, and to inhibit algae growth and facilitate easier cleaning. Detail application guidance on any of the above and other potential applications is available from Thermax on request.

Health & Safety Instructions

Contact with skin or eyes shall be avoided. Splashes shall be removed from skin with soap and water. Use of solvent is not suggested. Any eye contamination should be washed with plenty of water and immediate medical treatment shall be sought.

If accidentally swallowed, medical attention shall be sought immediately. Vomiting should not be induced. Prolonged inhalation of the vapour should be avoided. Adequate ventilation shall be ensured during application of the product.

Fire

T-GUARD[®] BCP and T-GUARD[®] BC are flammable.

Flash Point

37°C

No smoking or sources of ignition should be allowed and the working area be thoroughly ventilated. In the event of fire, use of fire extinguishers viz. CO₂ or foam is suggested.

Spillage

Replace lid when not in use. Soak up any spillage with sand or saw dust. Burn or bury in accordance with local regulations.

Storage

Shelf Life

T-GUARD[®] BCP and BC have a minimum shelf life 12 months under normal ambient temperatures, but they must be stored in a dry shady place and protected from temperatures above 40°C. It shall be kept away from sources of heat or ignition.

Packing

T-GUARD[®] BCP: 5 & 20 Ltrs Containers

T-GUARD[®] BC: 5 & 15 Ltrs. Containers

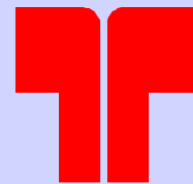
Coverage

The following may be used as a guideline.

T-GUARD[®] BCP- 4.0 to 6.0 m²/litre dependent upon porosity and texture of the substrate (see section on priming)

T-GUARD[®] BC- 2.0-2.5 m²/kg on medium to smooth surfaces first primed with T-Guard BCP gives dry film thickness approx. 250 microns per coat.

Note: For optimum protection 1 full coat of T-GUARD[®] BCP Primer plus 2 coats of T-GUARD[®] BC applied in accordance with the above instructions for use and coverage is generally recommended.



THERMAX

Thermax Limited
Environment House, Plot No.90-92
BG Block, MIDC, Bhosari,
Pune 411 026, India.
Tel: +91-20-67156000
Fax: +91-20-27120206
Customer Care: 18002090115 (India
toll free)
Email : enquiry@thermaxglobal.com

Ahmedabad

Tel: +91-79-26575408 • Fax: +91-79-65577270

Bengaluru

Tel: +91-80-22371721 • Fax: +91-80-22371726

Chennai

Tel: +91-44-24303400 • Fax: +91-44-24353841

Delhi

Tel: +91-11- 46087200 • Fax: +91-11- 26145311

Hyderabad

Tel: +91-40-23253700 • Fax: +91-40-23253799

Kolkata

Tel: +91-33-66070800 • Fax: +91-33-66070999

Mumbai

Tel: +91-22-67542222 • Fax: +91-22-22040859

Thermax World-wide

UK, USA, UAE, Germany, Belgium, Denmark,
Russia, Saudi Arabia, Thailand, Malaysia,
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