TufGuard S

High Performance Pure Aliphatic Acrylic Coating for Concrete and Masonry

Uses

TufGuard S is designed to protect atmospherically exposed, reinforced concrete structures from attack by chloride ions, oxygen and moisture ingress, especially where there is a danger of subsequent cracks appearing with in the substrate. Typical uses include, but are not necessarily limited to, the following:

- Bridge abutments
- Concrete cladding and precast units
- Boundary walls
- Plinths and pipe support racks
- Concrete storage tanks – external surface
- High rise buildings and villas
- Coastal environments

Typical Applications & Advantages

- Protection in depth – dual action system protects both the surface and the substrate.
- High performance – comprehensive barrier against carbon dioxide, water, sulphates and chloride ions.
- Extremely durable – maintains elastomeric performance, with high recovery, even after long term UV weathering.
- Breathable – water vapour can escape from the structure.

Standards Compliance

TufGuard S complies with the requirements of the following standards:
ASTM D 1644:88.

Product Description

Tufguard S is a pure aliphatic acrylate, solvent based protective coating. The complete system also includes a film-forming, stabilizing primer (**TufGuard DG**) which is supplied as a clear liquid and is based on an acrylic resin and a silane- siloxane dissolved in a penetrating organic carrier. The primer is reactive and capable of producing a chemically-bound hydrophobic barrier, thus inhibiting the passage of water and water-borne contaminants. A thin surface film is produced which consolidates and stabilizes porous substrates.

Typical Properties

Specific gravity	:	1.30 @ 25±2°C
Solid content	:	35% by weight

Technical Support

GIC provides a comprehensive technical support service to specifiers, end users and contractors and is able to offer on-site technical assistance.

Instructions for Use

For all types of membranes or coatings, it is advisable to carry out trials to determine compatibility with **TufGuard S**, and retention of bond between the underlying coating or the membrane and the substrate.

Surface Preparation: Ensure the concrete foundation surface is dimensionally stable and free of dirt, dust, oil, laitance, paint, curing compounds etc. Bolt holes and fixing pockets should be free from any dirt or debris. If possible a roughened surface is preferable to smooth surfaces. Metal surfaces must be free from rust, loose scaling and paint. Shuttering should be covered with polyethylene to ensure a clean release.

Substrate priming: A primer coat is required to penetrate and stabilize the substrate. The depth of penetration of the primer, and thus its coverage rates, are determined by substrate profile, porosity and general condition. Hence for low permeability concretes, primer penetration will be low and area covered per litre will be high – permeability may be affected by cement replacements. Any areas of glass should be masked. Plants, grass, joint sealants, asphalt and bitumen painted areas should be protected during application.

Application: The primer should be allowed to dry for a minimum of 2 hours at 20^0c before application of **Tufguard S.** Under no circumstances should the primer be over coated until the surface is properly dry. All primed substrate should be treated with two coats of **TufGuard S**. It is important that no gaps or raw edges appeared in the finished coating. Special

care should be taken to provide an unbroken coating at external corners and similar exposed protrusions. The coat should be allowed to dry until firm to the touch. Typically this will be after 12 hours in dry weather at 35^0c. The second coat of **TufGuard S** should be applied at 90^0 to the first, to ensure a final full unbroken coating to the substrate.

Cleaning: TufGuard S should be removed from tools and equipment with clean water immediately after use.

Watch Points

- Where application over existing sound coatings or paints is required, trials should be conducted to ensure compatibility and retention of the bond between the underlying coating and the substrate.
- Compatibility and soundness should be assessed on a trial area.
- **TufGuard S** should not be used in submerged or permanently wet conditions.
- Application should not commence if the temperature of the substrate is below 20^0c or above 60^0c, or where the prevailing relative humidity exceeds 90%.
- **TufGuard S** should not be applied in windy conditions where early-age dust adhesion may occur, or where rain is likely with in 2 hours.

Packaging & Storage

TufGuard S is available in factory, pre-weighed units of 20 liters. It has a minimum shelf life of 12 months provided it is stored under cover, out of direct sunlight.

Coverage

Coverage varies depending on ambient conditions, surface preparation, application methods, etc. Typically a coverage of $4m^2$/litre is possible.

Health & Safety Precautions

TufGuard S does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes. Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately – do not induce vomiting.

For further information refer to the Material Safety Data Sheet available for this product.

Important note

GIC endeavors to ensure that the technical information contained herein is true, accurate and represents our best knowledge and experience. No warranty is given or implied, as GIC has no control over the conditions of use and the competence of any labor involved in the application are beyond our control.

As all GIC technical data sheets are updated on a regular basis it is the customer's responsibility to check that the product is suitable for the intended application, and that the actual conditions of use are in accordance with those recommended.

Rev: October 2007

Gulf International Chemicals SAOG

FACTORY & H.O.

P.O.BOX 132,

PC 124, Rusayl

Sultanate of Oman

Tel: +968 24446800

Fax: +968 24446808

Email: gulfint@omantel.net.om

Gulf International Chemicals

REGIONAL OFFICE

P.O BOX: 98175,

DUBAI,

UAE

Tel: +971 4 2583221

Fax: +971 4 2583220

Email: gic_dxb@emirates.net.ae