

# GP TOUGH GUARD 5000

## 100 % Solids Polyurea Elastomer

### == Description

GP TOUGH GUARD 5000 is two component fast cured aromatic 100 % solids, no VOC (Volatile organic compound) Polyurea elastomeric coating. It is designed to provide excellent resistance to abrasion, corrosion and many chemicals including selected hydrocarbon solvents. It can be applied as a stippled finish. It is an ideal coating for concrete restoration and water proofing application.

### == Recommended Use

GP TOUGH GUARD 5000 can be used to rehabilitate and protect concrete or masonry surface, which have been damaged from mechanical, chemicals or temperature related abuse.

It can be used as protective, elastomeric membrane coating in

- Abrasion Resistance Coating for engineering shop- floors shows rooms, pharma floors & mining industry.
- Marine and offshore installations- Jetty, Heli decks, Boat landing.
- Canals and tunnel in hydroelectric projects.
- Tank coatings for selected chemicals.
- Internal and external of pipelines.
- Best suitable for field joint on site application.
- Truck Bed liner system under carriage, Ambulance interiors, Tankers.
- Waterproofing: interior or exterior.
- Waste water Treatment Plants
- Airport Hangers.
- Cold storage facilities
- Food processing plants & Fast food facilities
- Bottling and canning facilities
- Parking Decks, Ramps, walk ways and Balcony Decks
- Protective coatings in chemical plants, nuclear installations, power plants, etc.
- Encapsulation of Asbestos and other environmentally undesirable materials.
- Cooling towers.



Perfection in  
Protection

**ISO 9001**  
**ISO 14001**

## Features and Benefits

- Fast to handle, set in Seconds
- Excellent thermal stability
- Excellent Corrosion Protection
- Superior abrasion resistance.
- Low permeation Rate
- Zero VOC- environmental friendly
- Seamless, Resilient, Flexible Elastomer
- Applicable in Sub-Zero Temperature
- Chemical & Water Resistance

## Physical Data

COLOUR	: Selected Industrial shades
FINISH	: Smooth and Glossy
SOLIDS BY VOLUME	: 100 %
THEORETICAL SPREADING RATE	: 1 sq.mt/lt at a DFT of 1000 $\mu$
DRYING CHARACTERISTICS (At 65% Relative Humidity & at 30°C)	: Tack free : 60 Sec Full cure: 7 Days
SHELF LIFE	: BASE : 6 months HARDENER : 6 months (Under proper conditions of storage)

## Surface Preparation

The surface must be sound and free from oil, grease, old paints etc. A surface profile of 50-100 micron should be appropriate for bonding. This can be done by shot blasting or grit blasting.

**Concrete** : For optimum performance, the concrete should be grit blasted. The concrete should be allowed to cure a minimum of 28 days. For maximum adhesion, GP TOUGH GUARD 5000 should be applied over GP CONCRETE PRIME



Perfection in  
Protection

**ISO 9001**  
**ISO 14001**

207(See GP CONCRETE PRIME 207 Data sheet for details). After proper preparation, GP TOUGH GUARD 5000 should be applied in a cross directional (North, South, East, and West) method at a recommended D.F.T. in multiple passes.

Steel

: Abrasive blasting to Sa 2 1/2 Swedish Standards is must with a roughness profile of 75-100 microns. The coating should be applied preferably immediately or within 4 hours after blasting for best performance. In case it is extended; the surface should be sweep blasted to remove any flash rust that may have formed.

Rust protecting Primer like GP Tough Guard 235 can be applied within 4 hrs. of blasting. In such case, GP Tough Guard 5000 to be applied on Primed component when primer is near Tack-free.

## Application Data

- MIXING RATIO : Base: Hardener 1: 1 by volume
- Gel Time : < 10 Sec
- RECOMMENDED DFT : Min. 1000 microns (depends on service condition. Contact GP representative for recommendation).
- COMPATIBILITY : If Colour stability is critical, then use aliphatic acrylic P.U. top coat

## Application Method & Spray Equipment

Application of GP TOUGH GUARD coating requires specialized high pressure/ high temperature, direct impingement mix, plural component equipment (1: 1 by volume). The proportioning unit must be capable of supplying correct pressure and heat for the appropriate hose length on a consistent basis. Heating of the materials prior to spray is necessary to reduce system viscosity (i.e. the A & B components). Viscosity reduction improves the mix, flow and leveling of the applied coatings.

It is very important to maintain constant pressures while spraying. A radical variation of these pressures can result in loss of physical properties, poor color retention, bubbling, blistering and Adhesion failure of the materials from the surface applied to. Hose temperature should maintain a minimum temperature of 70°C. The resin and isocyanate heater should maintain 70°C.

To ensure proper mixing, we have found that the use of a high pressure proportioner and spray gun are essential and have had excellent result with following commercially available equipment from Graco Corporation.



Graco Model GX 7 DI Direct Impingement Mixing Spray Gun

Graco Model HV - 20/35 Plural Component Metering Unit.

Similar plural component spray equipment from other manufacturers can also be used.

## Additional Information

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following section of Grand Polycoats' latest Data manual:

- Guide to Product Data Sheet
- Surface Preparation Details
- Health & Safety Sheet

## Notes

1. Spray equipment should be cleaned with GP's recommended cleaning materials otherwise equipment is liable to be damaged.
2. Shelf life indicated is minimum for this Product in sealed condition and it is subjected to re-inspection thereafter. Individual component is required to store in cool, dry and covered condition, away from heat and ignition.
3. Surface temperature must always be minimum of 3°C above Dew point.

## Health & Safety

This is a solvent based paint and care should be taken to avoid inhalation of spray mist or vapours as well as contact between the wet paint and exposed skin or eyes.

## Limitation of Liability

To the best of our knowledge, the technical data in our literature are true and accurate at the date of issuance but are subject to change without prior notice. We guarantee our product to conform to the specifications contained herein. We make no other warranty or guarantee of any kind, express or implied, including merchantability and fitness for particular purpose. Liability, if any, is limited to replacement of the product or refund of the purchased price. Labour or cost of labour and other consequential damages are hereby excluded.



Perfection in  
Protection

ISO 9001  
ISO 14001

Grand Polycoats Co.Pvt.Ltd. 204, Siddharth Complex, R.C. Dutt Road, Vadodara - 390007, (Gujarat) India.

Tel.: +91-265-3064200 / 3064201 Fax: +91-265-2337022

E-mail: [marketing@grandpolycoats.com](mailto:marketing@grandpolycoats.com) Website: [www.grandpolycoats.com](http://www.grandpolycoats.com)

R: 01 / 06: 08 This supersedes all earlier versions of this product data sheet.