



# TURBO

## HIGH PERFORMANCE GLASS MOSAIC ADHESIVE FOR SWIMMING POOLS

Dubond's TURBO is a technical marvel of shock absorbent system (SAS) technology to produce a single part adhesive that has absolute insensitivity to the action of water, for it has binders and stable co-polymers with alkali hydrolysis. Turbo doesn't give up its bond even in the testing of high external pressure due to of water and also condition water seeps to the high adhesive layer thus it finds favor presence with laying professionals of swimming pools and various water bodies.

### Green Building Rating



Mineral  $\geq$  30%



Low Emission



Low Ecological Impact



Health Care



Water Based

### Areas of Application

- Designed for interior & exterior floor and wall installation of all types of glass mosaic.
- Ideal for Swimming pools, tanks, flooring and walls, indoor/outdoor use, in domestic, industrial and commercial applications and for street furniture,
- In areas that are permanently damp and subject to thermal shock and freezing.
- Very good for swimming pools and various water bodies.
- It can be used to clad glass, tiles and natural stones / artificial stones.

### Features & Benefits :

- Mineral adhesive for high-performance laying or overlaying with no vertical slip
- Single-component with very low volatile organic compound emissions, recyclable as an inert material at the end of its life
- It develops full stability to the action of alkaline hydrolysis, ensuring the effective laying of coverings in structures in constant contact with water

### Method of Application :

1. In general, cement-based substrates must be free from dust, oil and grease, dry and free from any rising damp, with no loose, flaky or imperfectly anchored parts such as residual traces of cement, lime and paint, which must be totally removed.
2. The substrate must be stable and without cracks, must have already completed curing hygrometric shrinkage and must present suitable mechanical resistance levels. Undulated areas must be corrected with suitable smoothing and finishing products.

#### Non-absorbent substrates :

1. Smooth, non-absorbent substrates which are compact and wellanchored must be prepared by cleaning with products suitable for the type of dirt present.
2. If chemical cleaning cannot be carried out, proceed with mechanical abrasion by means of shot-blasting or scarification of the superficial layer and, if necessary, correct the surface with suitable levelling products.

#### High-absorption substrates :

On screeds and plasters which are highly absorbent and have dusty flaky surfaces it is advisable to apply one or more coats of HydroPrime a professional, concentrated water-base, surface insulation product, in accordance with the instructions, to reduce water absorption and to improve spreadability of the adhesive.

## Preparation

- Prepare Turbo in a clean container, first of all pouring in a quantity of water equal to approximately . of that which will be required.
- Gradually add Turbo to the water in the container, mixing the paste from the bottom upwards with a low-rpm ( 400/min.) helicoidal agitator.
- Then add more water until the desired consistency is obtained. The mixture must be homogeneous and without any lumps. For best results, and to mix larger quantities of adhesive, a stirring device with vertical blades and slow rotation is recommended.
- Specific polymers with high-dispersion properties ensure that Turbo is immediately ready for use. The amount of water to be added, indicated on the packaging, is an approximate value and will vary . It is possible to obtain mixtures with a more or less thixotropic consistency, depending on the type of application.

**Adding extra water does not improve the workability of the product, and may cause shrinkage in the plastic phase of drying and result in less effective final performance with a reduction in compressive strength and adhesion to the substrate.**

## Application

1. Turbo should be applied with a suitable toothed spreader, to be chosen according to the size and characteristics of the rear surface of the tiles. It is best to use the smooth part of the trowel to spread a fine initial layer, pressing down hard so as to obtain maximum adhesion to the substrate and to regulate water absorption, after which the thickness can be adjusted as required by tilting the spreader at an angle.
2. Spread the adhesive over a surface area which will allow for laying of the covering materials within the indicated open time, and check for suitability of the adhesive at regular intervals. The open time may vary considerably even during the application, depending on various factors such as exposure to sunlight, air currents, absorbency of the substrate, temperature and relative humidity of the atmosphere.
3. Press down each tile to allow for complete, uniform contact with the adhesive. In the case of laying in environments subject to heavy traffic, in outdoor locations, on underfloor heating systems or with materials to be smoothed on-site and with formats > 900 cm<sup>2</sup>, the double-spread technique must be used, which ensures laying procedures on fresh adhesive, 100% coverage of the rear of the tiles and maximum adhesion.
4. In general, ceramic tiles do not require preliminary treatment, however these materials should be checked to ensure they are free from traces of residual dust or materials not properly anchored to the surface

## Special applications :

- Partial replacement of mixing water with Tuffex AD professional elastomeric latex enhances the adhesive's capacity for transversal deformation. The real necessity for deformability of the laying system must be verified, as use of an excessively deformable adhesive together with highly-rigid substrates and laying materials may cause breakage and early unexpected yielding of the covering materials when placed under heavy and concentrated strain or loads.
- To define the percentage of Tuffex AD to be added, on the basis of the various factors related to the system, consult the Dubond Products (India) Pvt Ltd's official web site.

## Elastic joints :

- Provide desolidarisation joints and elastic fractionizing joints for areas of 20/25 m<sup>2</sup> in indoor applications, 10/15 m<sup>2</sup> in outdoor applications and for every 8 metres length in the case of long, narrow applications. Structural and string-course joints have to be marked on the external facade.

## Precautions & Limitations :

- Do not use on gypsum-base plasters and anhydrite screeds without the use of HydroPrime a professional concentrated, water-base, surface insulation product; on plastic or resilient materials, metals and wood; on substrates subject to continuous moisture rising
- Do not use the adhesive to correct substrate irregularities greater than 15mm
- Lay and press tiles onto fresh adhesive, making sure it has not formed a surface film the temperature, ventilation and absorption of the substrate and covering materials may vary the adhesive workability and setting times
- Protect against direct rain and freezing for at least 24 hours
- Use a toothed spreader suitable for the format of the tiles
- Use the double spread technique for all outdoor laying

## Technical Information :

Colours	<b>White</b>	
Mixing Ration	<b>5.6 to 6.4 Ltrs/Bag 20 Kg Turbo</b>	
Pot Life	<b>≥ 4 Hours</b>	
Open Time	<b>≥ 30 Minutes</b>	
Adjustability	<b>≥ 30 Minutes</b>	
Bed Thickness	<b>≤ 15mm</b>	
Grouting	<b>8 Hours on Wall / 24 Hours on Floor</b>	
Foot Traffic	<b>24 Hours</b>	
<b>Final Characteristics</b>		
Shear Adhesion After 28 Days.	<b>≥ 2 MPa</b>	<b>ANSI A-118.1</b>
Tensile Adhesion on Concrete After 28 Days.	<b>≥ 2 MPa</b>	<b>EN 1348</b>
Durability Test:		
-Adhesion After Heat Agering.	<b>≥ 2 MPa</b>	<b>EN 1348</b>
-Adhesion After Water Immersion	<b>≥ 1 MPa</b>	<b>EN 1348</b>
-Adhesion After Freeze Thaw Cycles.	<b>≥ 1 MPa</b>	<b>EN 1348</b>
Working Temperature	<b>From - 30°C To 80°C</b>	
Conformity	<b>C2 TE</b>	<b>EN 12004</b>

## Coverage :

This shall depend on the nature and flatness of the surface and the method of application, but at 15 mm thickness it is approximately 80-90 SqFt/ M<sup>2</sup> 1.5mm for 20kgs bag . For good coverage, it is vitally important that all surfaces should be clean, smooth, plumb, level and free from defects and undulations.

## Packing :

20 Kg Bag.

## Shelf Life & Storage :

12 months with original packing in dry storage place.

DISCLAIMER The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

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