

DYNAbond SBR

SBR Polymer Bonding Agent and Integral Admixture for Cementitious Mixes

Product Description

DYNAbond SBR is a white liquid, which has numerous uses as an admixture, primer, bonding agent and sealer.

Polymer Emulsions of this type have been used extensively over the last 20 years by the building industry as an admixture for cement and concrete applications, including repair and renovation, surfacing of floors and bonding generally. It contains anti-foam agents to control the density of Cementitious mixes.

Benefits

- Greatly improved adhesion to a wide range of substrates including dense concrete, steel, tiles etc.
- Mixes may be applied in much thinner sections
- Excellent resistance to water and water vapor
- A high level of resistance to salt permeation
- Much improved toughness and flexibility
- Reduced surface dusting of concrete
- Greatly improved resistance to many chemicals
- Reduced water: cement ratio for equivalent workability

Areas for Use

- As an admixture for mortar/screeds/renders.
- As a bonding agent for screeds/renders.
- As a primer/sealer in tiling applications.
- As a flex additive for Cementitious based tile adhesive when tiling on wooden/asphalt floors.
- In addition, SBR Bond has the advantage over PVA bonding aids in that it is not adversely affected in wet conditions and is therefore recommended for exterior use.

Limitations

In common with other SBR products, **DYNAbond SBR** is not suitable for colored exterior decorative renders which will not be subsequently overpainted. Its poor UV resistance may cause discoloration

Surface Preparation

All surfaces must be clean, dry and free from dust, grease and other contaminants.

Application

SBR BOND - FLOORING APPLICATIONS

This concerns the use of SBR Bond in screeds and toppings over background concrete. Adding SBR Bond to a floor screed or topping gives the following advantages:

- A low water: cement ratio allows a minimum of delay when over coating is required.
- Reduced permeability to liquids.
- Improved chemical, abrasion and impact resistance.
- Resistance to dusting.
- Thinner screeds, achieving reduction in weight and savings in materials.
- Excellent slip resistance.
- Good underlay for epoxy surfacing.
- SBR Bond has a long and successful track record of use in the construction industry.

SELECTION OF MATERIALS

To obtain maximum performance from mixes modified with SBR Bond it is important that attention is paid to the quality of the other materials used.

- **Sand** should be well washed and sharp. The grade of sand will depend upon the mix design.
- **Cement** Portland, High Alumina and sulphate resisting cements are compatible with SBR Bond. Portland cement should be fresh but cool. Cement containing air set lumps should not be used.
- **Coarse aggregate** e.g. Granite chippings. These should be dust free.
- **Air entraining agents** these should not be used.

SUBSTRATE REQUIREMENTS

The background must be capable of withstanding all stresses which will be put onto it and contain the appropriate joints. If it is to receive a topping the background should have a compressive strength greater than 30N/MM² and/or a tensile strength greater than 1N/mm².

PREPARATION OF SURFACES

Floors should be mechanically prepared, e.g. scabbled or shot blasted, to give an aggregate exposed surface. Dust should be removed by vacuum, not compressed air. All contaminants such as oil, grease, or any surface laitance must be removed to ensure adequate development of bond when the topping is applied. A water drop test is the simplest method to determine whether water repellent contamination is present.

PRIMING

Application of a primer coat is necessary to obtain maximum adhesion of the topping or screed. The clean and prepared substrate should be thoroughly soaked with clean water, and the excess removed.

A primer coat comprising 1 part **DYNAbond SBR**, one part water and three parts cement, should be mixed and well scrubbed into the substrate. The repair compound should be applied whilst the primer is still "wet".

MIX DESIGN

The mix design depends upon thickness and intended use. However, typically mixes for a 12mm topping or screed are as follows:-

	Primer	Screed	Topping
Cement	3	1	1
Moist Sand	0	3.5	1.75
3mm washed stone	0	0	1.75
DYNAbond SBR	1	.2(10 Lit/50kg bag of cement)	.2 (10 Lit/50kg bag of cement)
Water	1	As required	As required

All parts are by volume of uncompacted material.

COVERAGE RATE

As a rough guide, 1.2 liters of SBR BOND will cover 1m² of 12mm thickness using the above mixes.

MIXING

Mixing procedures for topping and screeds containing SBR Bond are similar to those used to conventional compositions, with gauging water partly replaced by SBR Bond. However, mixing time should be minimised to limit air entrainment.

Mixing should be carried out in a forced action mixer. The usual procedure is to pre-mix sand and cement in the mixer, pour in the SBR Bond, mix for 1 - 3 mins, then slowly add water to the required consistency.

NB. Over addition of water causes rapid thinning of latex modified mortars owing to the plasticizing effect of the latex.

POT LIFE

The mix has a pot life of approximately 30 minutes and batch size should be calculated accordingly.

APPLICATION

1. Apply topping or screed onto wet or tacky primer.
2. Compact and level with screed bar.
3. Finish with steel float. It is essential that the topping or screed is finished as the work proceeds.
4. The topping or screed would be cured for 1 - 2 days using conventional techniques. Curing should be started quickly after application.

Notes:

Joints in the screed or topping should coincide with the joints in the background.

It is easier to lay the mix if the ambient temperature is below 25°C.

If over coating the screed, oleoresinous floor finishes should be avoided.

It the water drop test indicates the presence of water repellants, it may be more suitable to use an epoxy primer in place of the latex/cement primer.

CLEANING OF EQUIPMENT

All tools should be cleaned immediately after use with water because hardened **DYNAbond SBR** modified toppings and screeds have excellent adhesion and are therefore difficult to remove. Solvents such as white spirit used with coarse wire wool help to remove partially hardened mortar.

Health & Safety

Consult MSDS for full list of hazards.

Storage

DYNAbond SBR is best stored at moderate temperatures to avoid the possibility of permanent damage occurring due to prolonged heat or excessive cold. **DYNAbond SBR** should preferably be stirred before use.

Shelf Life

12 months from date of manufacture in original unopened containers.

DYNAbond PVA is one of a wide range of specialised products manufactured in Trinidad and Tobago by SCL (Trinidad) limited under licence to IAI/Caribbean Technologies Limited. These include :-

- Concrete Admixtures
- Concrete release agents
- Concrete curing agents
- Concrete Repair Products
- Grouts
- Waterproofing
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