



VITAL TECHNICAL SDN. BHD.

Technical Data Sheet

VT-442

VitalShield Flex

- Flexible Cementitious Waterproofing



Issuance date: 31/03/08

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# VT-442 VitalShield Flex

## Flexible Cementitious Waterproofing

### APPEARANCE

Component A:  
Grey premix powder  
Component B: Milky liquid

### COLOR

Cement grey  
(after mixing)

### PACKAGING

7 kg/ set  
(2 kg latex, 5 kg powder)  
(2 sets/ carton)  
33 kg/ set  
(10 kg latex, 23 kg powder)

### SHELF LIFE

12 months

### STORAGE

Store under cover, in dry  
and cool place with  
temperature not accessing  
+30°C. Protect from  
freezing.

### APPLICATION TEMPERATURE

5 °C – 40 °C

### DESCRIPTION



VT-442 VitalShield Flex is a two part polymer modified, flexible waterproofing coating. Upon mixing, it becomes brushable, smooth slurry with excellent bonding to most substrates.

It is applied to concrete and mortar to prevent water infiltration.

### TECHNICAL DATA

Specific gravity	: 1.9 – 2.2 (after mixing)
Solvent	: Not present
pH (25°C)	: 11 – 13
Tensile strength	: > 0.8 N/mm <sup>2</sup>
Elongation	: > 75%
Shore A hardness	: > 85
Crack bridging	: Up to 1.0mm

### ADVANTAGES

- It is polymer modified thus improved the bonding strength on most substrates.
- It is flexible hence can accommodate moderate movements of hairline cracks up to 1.0mm.
- It has good resistance to weathering, thus is suitable for use in exposed conditions.
- It is non-toxic and can be applied on surfaces in contact with drinking water.
- It is permeable hence allows surface to breath, preventing the build-up of vapour pressure.
- It is easy to mix and apply.

### APPLICATION





- It is formulated as an effective waterproofing coating on a variety of substrates which includes water tanks, basements, car parks, terraces, balconies, bridges, retaining wall, swimming pools, RC gutters, bathroom floor, and walls, planter boxes, wet areas like kitchens, waste water treatment plants, shower room etc.

### PREPARATION

- Remove loose plaster, if any. All the cracks above 0.7 mm width should be properly sealed.
- The surface should be structurally sound and free from oil, grease and loose particles.
- For new concrete, it should be waited for at least 14 days before applying the VT-442 VitalShield Flex.
- Prior to the application, the surface of concrete should be thoroughly wetted or damped but residue water must be removed. The application temperature should be between 15 °C to 45 °C.

### APPLICATION DIRECTION

1. Use clean containers for mixing. Mix materials with mechanical mixing equipment.
2. Mix only the amount of material that can be applied within limited "open time". Do not re-work set or hardened material; remove such material from the site.
3. Pour about 2/3 of the component B into the container. Slowly add the powder (component A) to the liquid while stirring and mix to a smooth paste free from lumps of undispersed powder.
4. Dilute to a brushable consistency using the remaining liquid (component B). Less liquid may be used if a stiffer mix is required. Do not add additional water.
5. While the surface is damp, apply the mixed compound (VT-442 VitalShield Flex) to the surface with a brush, roller or spray at the minimum rate of 0.7 - 0.8 kg/m<sup>2</sup>. The base coat will be cured to dry at least for 24 hours.
6. For the permanent sealing and waterproofing result, it is necessary to apply at least two coats or more, with the first coat allowed to dry before applying the second coat at the right angles on the first coat.
7. The coverage for 33 kg per set of VT-442 VitalShield Flex is about 1.5 kg/m<sup>2</sup> to 2.0 kg/m<sup>2</sup>.
8. All tools should be cleaned with water immediately after use. Clogged brush can be cleaned by soaking in very hot water with a little detergent. Cured material can only be removed mechanically.

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## VitalShield Flex

**CAUTION**

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Avoid breathing vapours. Wash hands thoroughly after handling. Wear protective gloves and eye protection. IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If skin irritation or a rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Keep out of reach of children. Safety data sheet available on request. For further health and safety information, consult the latest safety data sheet.

**LEGAL NOTES**

Every endeavour has been made to ensure that the information given herein is true and reliable but it is given only for the guidance of our customers. The company cannot accept any responsibility for the loss or damage that may result from the use of the information, due to the possibility of variations of processing or working conditions and of workmanship outside our control. Users are advised to confirm suitability of this product by their own tests.