

DELTA Prime

3K SF WB Epoxy Primer



T E C H N I C A L D A T A S H E E T

Three component Water dispersible epoxy primer

Description

3K SF WB Epoxy Primer is a three-component water dispersible , low viscosity epoxy primer specifically designed for sealing and priming concrete substrates. It is ideal for concrete to solidifying porous and weak concrete substrates.

Features

- Formulated at 1:1:1 ratio by volume for easy application with brush, spray, roller
- Penetrates deeply into concrete surface
- Solvent free
- Non hazardous
- Exceptional adhesion to correctly prepared concrete, most construction concrete substrates
- Long re-coating interval
- Designed for extreme climates
- Increases the service life of the waterproofing system
- Significantly increases bond strength and adhesion

Typical uses

- As a penetrating concrete densifier and primer prior to the application of any DELTA protective linings
- As a base coat for DELTA floor coatings
- As a consolidating compound for mechanically weak cementitious screeds with insufficient binder or poor curing
- As a waterproof barrier over screeds, before laying any DELTA protective linings, to prevent residual moisture from rising
- As a consolidating impregnating dust-repellent solution for concrete floors.



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Product information

Processing properties	Data	
Mixing ratio Part A : Part B : Water [by volume]	1 : 1 : 1	
Pack size (mixed) [ltr]	20	
Mixed specific gravity [kg/ltr]	1.02 ± 0.2	
Recommended application method	Brush, Roller, Airless	
Color	Clear	
Flash point (ambient) [° C]	Base: 50	Additive 50
Solids [%] after water dilution	68 ± 2	
VOC [grams/ltr]	0	
Average pot life [hours]	23° C	35° C
	4	2
Typical thickness [microns]	Dry film thickness: 100	Wet film thickness: 150
Theoretical coverage [m²/ltr]	5-6	
Average overcoat window [hours]	23° C	35° C
	16	12
Average touch dry [hours]	23° C	35° C
	3	1.5
Pull off strength [mPa] (ASTM D-4541)	Steel	Concrete
	> 6	> 1.5
Storage conditions (closed original drums, dry & covered place) [° C]	10 – 40	
Shelf life (unopened and stored correctly) [year]	1	

The actual spread rate will vary depending upon the type of substrate coated and the method of application chosen. If the surface to be coated is excessively rough or porous, the spread rate may be significantly reduced. When treating such surfaces, practical tests should be carried out prior to the onset of full scale application

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Surface preparation

- New concrete should be allowed to cure for at least 4 weeks prior to any painting works. It is recommended that prior to any coating application; the substrate should be checked for moisture content. If the moisture content is found to be higher, more drying out time should be allowed
- For new concrete or other cementitious substrates, it is essential that all laitance, form oils, curing chemicals and release agents be removed
- To ensure satisfactory adhesion when coating floors, it is essential that acid etching, mechanical or blast cleaning be undertaken
- If acid etching is the chosen method, it is essential that the area is freshwater washed after completion of the etching process
- For old or previously painted substrates, it is recommended that all loose and friable materials be removed by mechanical cleaning
- Ensure surfaces to be coated are dry and free from all traces of contamination

Application equipment

Airless spray

- Nozzle Size: 0.33-0.38mm (13-15 thou)
- Fan Angle: 40°
- Operating Pressure: 155kg/cm² (2200psi)

The airless spray details given above are intended as a guide only. Fluid hose length and diameter, paint temperature and project complexity all have an effect on the choice of spray tip and operating pressure. The operating pressure should be the lowest possible consistent with satisfactory atomization. As conditions vary, it is the applicators' responsibility to ensure that the equipment in use has been adjusted to give optimum performance. In case of any difficulties or queries, please contact DELTA Regional Technical Centre.

Conventional spray

- Nozzle Size: 1.52mm (60 thou)
- Atomizing Pressure: 3.2kg/cm² (50 psi)
- Fluid Pressure: 0.35 – 0.7kg/cm² (5 - 10 psi)

Conventional spray details given above are intended as a guide. It may be found that in some circumstances, slight variations in atomizing pressure, fluid pressure and alteration of tip arrangements may provide optimum atomization.

Brush, roller

- The material is suitable for brush, roller & squeegee application.

Recommended top coat

- May be overcoated with any of DELTA's range of products as well as other high-performance epoxies and polyurea systems, provided that the surfaces to be coated have been suitably cleaned
- To achieve optimum adhesion, overcoating must be undertaken within 4 hours

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Application conditions & overcoating

- In conditions of high relative humidity, i.e. 80-85% good ventilation is essential. Substrate temperature should be at least 3° C above the dew point. Application temperatures below 10° C; drying times will be significantly extended and spraying characteristics may be impaired. Application at temperatures below 5° C is not recommended. To achieve optimum water and chemical resistance; the temperature should be maintained above 10° C. For application at elevated temperatures, please see the notes below
- To overcoat outside the times stated, please seek the advice of DELTA's Regional Technical Centre

Additional notes

- Drying, curing and pot life times should be considered as a guide only
- The curing reaction of this product commences immediately the two components are mixed
- Reaction being temperature dependent, the curing and pot life will be approximately halved by 10° C increase in temperature and doubled by a 10° C decrease in temperature
- Variable colour stability is a feature of all epoxy materials, which tend to yellow and darken with age particularly when used on external areas. When epoxy material is exposed to ultraviolet light, a surface chalking effect will develop. The phenomenon results in the formation of fine powder coating at the coating surface, which gives rise to a colour variation as well as a reduced gloss. This effect is cosmetic only and in no way detracts from the performance of the product. Should a full colour stable finish be required, consult with DELTA Technical Center

Tropical use

- To ensure satisfactory pot life, the temperature of **3K SF WB Epoxy Primer** should not exceed 50° C at the time of mixing. Thinning the mixed product at any stage will not extend the working pot life
- Application outside the working pot life, even if the material appears to be fit for use, may result in inferior adhesion properties. The recommended maximum air and substrate temperature for the application of this product is 50° C, providing that the conditions allow for satisfactory application and film formation
- If the air and substrate temperatures exceed 50° C during application, paint film defects such as dry spray, bubbling and pin holing etc. may occur

Packaging

- **3K SF WB Epoxy Primer** is supplied in 20 liter sets
 - Component A 10 liters
 - Component B 10 liters

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Health, safety & environment

- Flammable. Keep away from sources of ignition. Do not smoke
- Work only in areas of good ventilation. When used indoors always keep doors and windows fully open during application and drying. When applying for short periods only, a suitable cartridge mask may be worn provided the filter is changed regularly. All respiratory equipment must be suitable for the purpose and meet an appropriate standard approved by the HSE. Refer to your COSHH Assessment
- When applying paint it is advisable to wear suitable eye protection. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
- Remove splashes from skin: use soap and water or a recognized skin cleaner
- Keep container tightly closed and keep out of reach of children. Do not use or store by hanging on a hook. Do not empty into wadis, drains or watercourses
- Contains no added mercury

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user's responsibility to satisfy himself, by his own investigations and testing, the suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. These products require specialized equipment and skills to apply. It is the purchaser's responsibility to ensure that they have the necessary equipment, skills and experience to apply these products. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Technical and application information is provided for the purpose of establishing a general profile of the material and application parameters. Test performance results were obtained in a controlled environment and DELTA Coatings International LLC makes no claim that these tests or any other tests can be accurately reproduced in all environments. The rights of the purchaser regarding the quality of our materials follows completely our general terms and conditions. For requirements, which exceed the scope of the above-mentioned applications please contact DELTA technical staff. DELTA Coatings International LLC reserves the right to change or modify the details and data contained herein at any time. Valid is only the actual version of this technical data sheet in each case.

* DELTA recommends that in all applications involving chemicals a pre-test of the lining's suitability in the customer's application is conducted. Consult with DELTA Technical Team.

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