

DELTA Shield

TC 100



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

High Performance, High Gloss, Rapid Curing Protective Coating

Description

Deltashield TC 100 is a two-component polyurethane aliphatic top coat technology, cold applied, fast curing, high performance coatings. It is ideal for high gloss top coat where the requirement of color stability is required in a commercial and industrial coating system.

Deltashield TC 100 is UV and colour stable, suitable for pedestrian, heavy traffic and can be installed with slip resistant surface profile options.

Deltashield TC 100 is specifically formulated for applications where the physical performance is required along with colour fastness to ensure functionality and aesthetics.

Features

- Fast curing touch dry
- Seamless coating
- Excellent adhesion to substrates
- Resistant to chemicals
- Designed for extreme climates
- Bond strength
- High flexibility
- Good abrasion resistance
- Thermally stable

Typical uses

- Single product, one application, UV and colour stable for commercial and industrial flooring system
- Warehouse floorings
- Restaurant and kitchens
- Retail shops and shopping malls
- Car park decks
- As a top coat for all DELTAShield HP products



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Product information

Processing properties	Data		
Mixing ratio, A : B (by weight)	3: 1		
Dry film thickness range [micron] (For project specific DFT recommendations consult with manufacturer)	Steel	Minimum: 50	Maximum: 150
	Concrete	Minimum: 50	Maximum: 150
Pot Life at 20° C [min]	80-90		
Tack Free-Time at 20° C [min]	60 – 90		
Over coat cycle (without any pre-treatment) [h]	4 – 12		
Curing/loading after [h]	Walkable: 3	Mechanical: 8	Chemical: 12 – 24
Temperature range for application (ambient) [° C]	+10 - +50		
Temperature range for application (substrate) [° C]	+10 - +50		
Material Temperature (Preconditioning) [° C]	25 – 30		
Maximal relative air humidity for application [%]	98		
Dew point limit	Substrate should be 3° C > dew point		
Storage conditions (closed original drums, dry & covered place) [° C]	10 – 30		
Shelf life (unopened and stored correctly) [year]	1		

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Physical properties	Data	
VOC [g/L]	USEPA 24	<344
Volume Solids [%]	ASTM D-2697	64 ± 2
Viscosity [mPa*s] @ 25° C	ASTM D-4878	Comp. A: 6000-10000 Comp. B: 50-100
Density [g/cm³] @ 20° C	ASTM D-1217	Comp. A: 1.25 – 1.35 Comp. B: 1.01 – 1.05
Density [g/cm³]	ASTM D-792	1.20– 1.25
Abrasion resistance [mg]	ASTM D-4060-19	< 7.5 (Wheel CS17 / 1000g / 1000 Cycles)
Pull off strength [N/mm²]	ASTM D-4541	Concrete: ≥ 1,01 Steel: ≥ 4
Weathering resistance	ASTM D-714-02(2017)	No cracking, chalking, flaking, wrinkling, blistering
Color change	ASTM D-714-02(2017)	No changes observed

- DELTA recommends in all applications involving chemicals a pretest of the lining's suitability in the customer's application is conducted. Consult with DELTA Technical Team
- All data depends on site conditions. Ambient temperatures, substrate temperatures and humidity will all influence stated data
- Film thickness and application techniques can also affect the stated data
- Cold temperatures will result in slower curing times and high temperatures will increase reactivity and reduce curing times relative to the stated data

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Application notes

- **Deltashield TC 100** should be applied in strict accordance with project specific application methodologies recommended by the manufacturer
- **Deltashield TC 100** can be applied using, roller, brush and Airless Machine by professionally trained and approved applicators
- Substrate should be cleaned and prepared prior to the application of **Deltashield TC 100**, in accordance with the manufacturers written specifications
- The A-side component should be thoroughly power stirred prior to the commencement of spraying and periodically during the application process to ensure there is no settling out of the A-side chemical components
- The Pigment is always mixed into the A-side using a power stirrer
- Compressed air supply should be supplied via an air dryer

Safety & handling

- All applicators of **Deltashield TC 100** should be trained and approved by the manufacturer
- Spray applicators should wear appropriate PPE including approved breathing equipment, eye wear, Nylux or similar light weight spray suit and appropriate covered footwear
- Avoid breathing in vapors during spraying or when handling chemicals
- Avoid eye and skin contact
- Store chemical drums in a cool dry environment. Avoid storing chemicals for long periods in direct sunlight
- Do not store chemicals next to food stuffs
- Ensure chemical drums are kept tightly sealed and avoid ingress of air and moisture

Technical services

- Detailed technical assistance and further information regarding this system and its relevant application specifications are available from DELTA Technical Services

Packaging

- **Deltashield TC 100** is supplied in 20 kg sets
 - Component A : 15 kg
 - Component B : 5 kg

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. Due to the large number of variables that can affect the product and the application process that are out of the control of DELTA Coatings International LLC no warranty of any kind, express or implied is given. The liability of DELTA Coatings International LLC for any claims is limited to the purchase value of the material.

Version 10022025