

DELTA Shield F 500 Ultra



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

One product, one application, aliphatic, flexible, seamless waterproofing membrane

Description

F 500 Ultra is a two component polyaspartic technology, cold applied, fast curing, high performance elastomeric waterproofing membrane that can be built to any thickness in one application. It is ideal for swimming pools, lagoons and water bodies where the requirement of color stability is required in an elastomeric coating.

F 500 Ultra is UV and colour stable, suitable for pedestrian and can be installed with slip resistant surface profile options.

F 500 Ultra 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
- Impact resistance
- Excellent crack bridging properties
- High elongation at break
- Bond strength
- Thermally stable
- High Tensile strength

Typical uses

- Single product, one application, UV and colour stable, seamless waterproofing, elastomeric membrane for pools, resort lagoons, artificial beaches and all marine applications



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Product information

Processing properties	Data		
Mixing ratio A : B (by volume)	1: 1		
Dry film thickness range [mm] (For project specific DFT recommendations consult with manufacturer)	Steel	Minimum: 0.5	Maximum: indefinite
	Concrete	Minimum: 0.5	Maximum: indefinite
Pot Life at 20° C [min]	25 – 30		
Tack Free-Time at 20° C [min]	60 – 90		
Over coat cycle (without any pre-treatment) [h]	4 – 12		
Curing/loading after [h]	Walkable: 1	Mechanical: 2	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	0
Solids [%]	ASTM D-2697	100
Viscosity [mPa*s] @ 25° C	ASTM D-4878	Comp. A: 700 – 900 Comp. B: 1200 – 1300
Density [g/cm³] @ 20° C	ASTM D-1217	Comp. A: 1.08 – 1.12 Comp. B: 1.05 – 1.08
Density [g/cm³]	ASTM D-792	1.05– 1.10
Tensile strength [N/mm²]	ASTM D-638-22	14 ± 2
Elongation at break [%]	ASTM D-638-22	180 ± 20
Hardness [Shore D]	ASTM D-2240-15(2021)	40 ± 5
Abrasion resistance [mg]	ASTM D-4060-19	< 5.5 (Wheel CS17 / 1000g / 1000 Cycles)
Pull off strength [N/mm²]	ASTM D-4541	Concrete: ≥ 1,5 Steel: ≥ 6
Weathering resistance	ASTM D-714-02(2017)	No cracking, chalking, flaking, wrinkling, blistering
Color change	ASTM D-714-02(2017)	No changes observed

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Application notes

- **F 500 Ultra** should be applied in strict accordance with project specific application methodologies recommended by the manufacturer
- **F 500 Ultra** can be applied using squeegee, roller, brush and Airless Machine by professionally trained and approved applicators
- Substrate should be cleaned and prepared prior to the application of **F 500 Ultra**, in accordance with the manufacturers written specifications
- The B-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 B-side chemical components
- The Pigment is always mixed into the B-side using a power stirrer
- Compressed air supply should be supplied via an air dryer

Safety & handling

- All applicators of **F 500 Ultra** should be trained and approved by the manufacturer
- Spray applicators should wear appropriate PPE including approved breathing equipment, eye wear, Nylex 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

- **F 500 Ultra** is supplied in 40 Liter sets
 - Component A : 20 Liter
 - Component B : 20 Liter



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.

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