



# DELTAShield TC 100 FR

## TWO COMPONENT ACRYLIC FINISH FIRE RETARDANT TOP COAT

<b>Description</b>	: DELTAShield TC 100 FR			
<b>MATERIAL TYPE</b>	: Solvent based two pack acrylic finish containing top quality pigments. DELTAShield TC 100 FR has excellent gloss, whiteness, non-yellowing properties, exterior durability and flame retardant properties.			
<b>RECOMMENDED USE</b>	: DELTAShield TC 100 FR is recommended for timber, cement and plastered surfaces where a non-yellowing finish is required with flame retardant properties. Flame retardant properties are required to minimize the risk of flame spread in fire.			
<b>Volume Solids (%)</b>	: 48 ± 2% (ASTM-D2697-91)			
<b>Specific Gravity (Kg/Ltr)</b>	: 1.25 (May vary with shade)			
<b>VOC</b>	: 458 gram/Liter			
<b>Colors</b>	: Limited range.			
<b>Pack Size</b>	: 5 kg and 20 kg units.			
<b>Shelf Life</b>	: Minimum 1 year			
<b>Mixing Ratio</b>	: 4 parts base to 1 part additive by volume			
<b>Theoretical Spread Rate</b>	: 18 m <sup>2</sup> /ltr			
:	Airless Spray	Conventional Spray	Brush	Roller
:				
: @ Dry Film Thickness	: 50 µm	50 µm	50 µm	50 µm
: @ Wet Film Thickness	: 105 µm	105 µm	105 µm	105 µm
:	<i>Spreading rates are calculated and due allowance for loss and wastage should be made.</i>			
<b>Drying Time @ temperature</b>	: 23°C	35°C		
<b>To Touch</b>	: 30 minutes	20 minutes		
<b>To Overcoat (Minimum)</b>	: 6 hrs	4 hrs		
<b>To Handle</b>	: 16 hrs	12 hrs		
	These figures are given as a guide only. Factors such as air movement and humidity must also be considered.			
<b>Cleanser or Thinner</b>	: Thinner			
<b>System Information</b>	: <b>Non – Yellowing System for Cement or Plaster:</b> 1 Coat DELTAShield TC 100 FR (thinned 20% with Thinner)			



2 Coats DELTAShield TC 100 FR

**Non-Yellowing Systems for Woodwork:**

1 Coat DELTAShield TC 100 FR (thinned 20% with Thinner)

2 Coats DELTAShield TC 100 FR

**Application Methods** : Airless spray, Conventional Spray, Roller, Brush

**SAFETY, HEALTH & ENVIRONMENTAL INFORMATION (READ THIS SECTION BEFORE USE) SOLVENT BASED PAINT PRODUCT**

- 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 COSSH 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.  
\*This data is subject to change without notice. Please ensure you have the latest copy by checking with our Customer Service Department.

**SURFACE PREPARATION**

Ensure surfaces to be coated are dry and free from all traces of surface contaminants.

**APPLICATION EQUIPMENT**

**Airless Spray**

Nozzle Size            0.33mm (13 thou)  
Fan Angle             65°  
Operating Pressure    140g/cm<sup>2</sup> (2000psi)

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 DELTACHEM MIDDLE EAST (L.L.C.).

**Conventional Spray**

Nozzle Size            1.27mm (50 thou)  
Fan Angle             3.5 kg/cm<sup>2</sup> (50 psi)  
Operating Pressure    0.7 kg/cm<sup>2</sup> (10 psi)

This details of atomizing pressure, fluid pressure and nozzle size are given as a guide. It may be found that slight variation of pressure will provide optimum atomization in some circumstances according to the set in use. Atomizing air pressure depends on the air cap in use and the fluid pressure depends on the length of line and direction of feed i.e. horizontal or vertical.

For application by conventional spray with Thinner Wet film thickness should be adjusted accordingly.

N.B. Thinning will affect VOC compliance.



---

## Brush and Roller

The material is suitable for brush and roller application to small areas only. Application of more than one coat may be required to give the equivalent dry film thickness to one spray applied coat.

---

## APPLICATION CONDITIONS AND 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. At 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. In order to achieve optimum water and chemical resistance the temperature needs to be maintained above 10°C whilst curing. For application at elevated temperatures, please see the note below. To overcoat outside the times stated on the data sheet, please see advice of DELTACHEM MIDDLE EAST (L.L.C.) Technical Centre.

---

## ADDITIONAL NOTES

Drying, curing times should be considered as a guide only. For spraying maximum 5 to 10% dilution is recommended,

The curing reaction of this material commences immediately the two components are mixed. Due to the reaction being temperature dependent, the curing and pot life will be approximately halved by a 10°C increase in temperature and doubled by a 10°C decrease in temperature.

To ensure a satisfactory working pot life, the temperature of DELTAShield TC 100 FR should not exceed 35°C at the time of mixing. Thinning the mixed product at any stage will not significantly 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 45°C, providing that the conditions allow for satisfactory application and film formation. If the air and substrate temperatures exceed 45°C during application, paint film defects such as dry spray, bubbling and pin holing etc. may occur. Numerical values quoted for physical data may vary slightly on individual batches.

---

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.

© Copyright, DELTA Coatings International LLC, DELTAShield TC 100 FR.

Version: December 2020-001