

# Thetapel<sup>TM</sup> FC-4010 Short-Chain wash-durable stain release finish

#### Overview

- Short-Chain Fluorochemical Technology (meets the goal of the US EPA 2010/2015 PFOA Stewardship Program)
- Wash-durable stain release finish with DWR performance
- Excellent Oil and Water Repellency
- · Readily dilutes in water for ease of use
- Imparts exceptional soil and stain protection to surfaces with little or no change in appearance
- Water based with low VOC (less than 100g/L, as delivered) content
- Best-in-Class performance meets or exceeds current Industry soil and stain protection offerings
- Treated surfaces are easier to clean, and improves newness retention

#### Performance summary-65/35% Cotton/Polyester

Stain Release:	5-Initial/5-50HL	
Spray:	70-Initial/70-50HL	
OR:	6-Initial/4-50HL	

#### **Applications**

- Apparel, Upholstery, and Home Furnishings
- Soil and Stain Protectors

## **Technical Information**

Thetapel FC-4010 is a partially fluorinated cationic product designed for mill applied wash-durable stain release finishing applications. Thetapel FC-4010 offers exceptional stain release performance, with water and oil repellency when applied to nylon, polyester, cotton and cotton blend fabrics.

Characterized as a fine particle emulsion that disperses readily into water, Thetapel FC-4010 is a pre-formulated concentrate that exhibits exceptional bath stability properties for clean running and efficient application in the mill. Environmentally responsible, Thetapel FC-4010 meets all current VOC regulations.

## Formulary

Dilute Thetapel FC-4010 in water. Recommended dilution rates vary from 1-5% on weight of bath (OWB) depending on application method, porosity of the substrate, desired performance, and cost parameters.

Addition of a preservative is recommended for packaged dilutions. Preservatives should be selected and evaluated by the formulator to determine use concentration, effectiveness, and formulation stability. Contact your preservative supplier for guidance and recommendations.

The addition of a cross-linking agent such as Flexipol DMP-20 can further enhance the durability of Thetapel FC-4010.

## **Typical Properties**

PROPERTY	VALUE	
Appearance	Pale yellow to yellow liquid	
Odor	Mild	
Water solubility	Dispersible	
Active content, %	20.0±1.5	
pH (as is)	4.5±1.5	
Density@25°C	1.10±0.04 g/ml	
Boiling Point	100°C	
Flash point	None (aqueous)	
Storage	Protect from freezing Gently mix before use	
Shelf life	12 months	

## Packaging and Handling

Thetapel FC-4010 is available in: 55 gallon plastic drums (Net Wt. 397 lbs)

Refer to the Safety Data Sheet (SDS) for information on the safe use, handling, and disposal of this product.

DOT Classification: Non-Regulated

Whether you're looking for a replacement product or an ingredient for a specific attribute, give us a call. We can provide assistance based upon your particular formulation requirements and composition; please feel free to contact us.

Please refer to back page for important information

## Thetapel<sup>™</sup> FC-4010 Application Guidance

#### **Application notes:**

Thorough rinsing of the fabric is important after scouring or dyeing to eliminate residual detergents and surfactants that can produce undesirable wetting effects after curing. To achieve the best results, fabrics to be treated must be carefully prepared prior to Thetapel FC-4010 application to remove residual sizing material, processing-lubricants, alkalis, and other impurities that can hamper penetration or negatively affect the stability of the finish bath.

#### **Dilution rates**

FABRIC TYPE	BATH CONCENTRATION	CURING CONDITIONS
Nylon	1.0-5.0%	190°C x 30 seconds
Polyester	1.0-5.0%	180°C x 120 seconds
Cotton	1.0-4.0%	190°C x 30 seconds
Polyester/Cotton blends	1.0-3.0%	180°C x 120 seconds or less

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