



Thetapel™ AM-5030

Short-Chain After-Market low temperature cure DWR finish

Overview

- Short-Chain Fluorochemical Technology (meets the goal of the US EPA 2010/2015 PFOA Stewardship Program)
- Low temperature cure, After-Market DWR finish for Professional and Institutional application
- Imparts exceptional Water Repellency and high Spray Rating with low temperature dry/cure
- Economical and versatile for exhaust, pad or garment finishing
- Readily dilutes in water with low VOC (<100g/L, as delivered) content
- Colorless and non-yellowing, does not impact drape or hand
- All-in-One finish for Apparel and Upholstery
- Treated surfaces are easier to clean, with Wash and Dry Clean durability
- Designed for low temperature cure performance, AM-5030 is perfect for mill finishing polypropylene and other heat sensitive fabrics
- Performance summary-
 - Water/Alcohol repellency:**
6 or better
 - Spray rating:**
80-100, with most fabrics 90+
 - Oil repellency:**
2, with most fabrics >4

Applications

- Durable Water & Oil Repellency for Apparel, Upholstery, Linen and Barrier fabrics
- Mill application for heat sensitive fabrics
- Economical mill application for high initial Spray Rating
- Exhaust application in wash rinse cycle
- WERCS ID number : WPS1530786
- WERCS Validation number: WPS1530786

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.

Technical Information

Thetapel AM-5030 is a partially fluorinated fabric finish designed for professionally applied After-Market durable Water and Oil Repellency applications. Thetapel AM-5030 has been specifically designed for imparting Durable Water Repellency performance to commercial fabrics, exhibiting exceptional low temperature dry/cure performance from Industrial/Institutional Laundry processes.

Thetapel AM-5030 readily disperses in water, exhibiting reliable dilution stability for exhaust/dry/cure institutional laundry finishing of garment, linen, and barrier fabrics. In Mill applications, AM-5030 is economically suited for use on heat sensitive fabrics, or on a broad range of fabrics requiring high water repellency and high spray rating where cost or drying capacity is a limitation.

Environmentally responsible, Thetapel AM-5030 is non-flammable and meets all current VOC regulations.

Formulary

Simply dilute Thetapel AM-5030 in water. Recommended use-concentration for exhaust, pad or garment finishing application is 3-4% on weight of fabric, dried and cured at 110°C for 30 minutes or equivalent, i.e. higher temperatures with shorter dwell times.

Thetapel AM-5030 has been found to be effective on a wide range of fabrics, including cotton, poly/cotton, polyester, polypropylene and rayon.

Typical Properties

PROPERTY	VALUE
Appearance	Off-White aqueous dispersion
Odor	Mild
Ionic character	Cationic
Water solubility	Dispersible
pH (as is)	4-7
Density@25°C	1.01±0.02 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 AM-5030 is available in:
275 gallon totes (Net Wt. 2200 lbs)
55 gallon plastic drums (Net Wt. 440 lbs)
5 gallon pails (Net Wt. 40 lbs).

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

DOT Classification: Non-Regulated

Please refer to back page for important information

Thetapel™ AM-5030 Performance Data Water/Alcohol Repellency, Oil Repellency, Spray Rating

Water and Oil repellency are key determining performance parameters for textile soil and stain resistance, with fabrics that repel soiling and staining liquids being more resistant. High Spray Rating indicates a strong visual water repellent perception. Fabrics treated with Thetapel AM-5030 are highly repellent to soiling and staining liquids, exhibiting exceptional initial Spray performance.

Preparation of Test fabric surface treatment

3-4% Thetapel AM-5030 on weight of fabric was diluted in water and pad applied to cotton, poly/cotton, polyester, polypropylene and rayon fabrics. Treated fabrics were low temperature dried and cured at 110°C for 30 minutes.

Water/Alcohol Repellency Drop Test (DuPont Test Method)

To evaluate the relative water repellency of a treated fabric, the Water/Alcohol Repellency Drop Test is commonly used. In this test, a series of wetting solutions with increasing wetting power are applied to a treated test fabric, with treated surfaces repelling the strongest wetting solution achieving the highest repellency rating. Repellency was measured by applying 3 drops of test liquid and observing wetting of the treated surfaces. Test liquids ranged from weakly wetting 2% isopropanol in water (1 rating) to strongly wetting 50% isopropanol in water (6 rating). The higher the concentration of isopropanol (higher number rating) of the drop not wetting the surface, the more repellent the surface. If the drops were repelled for longer than 10 seconds the surface was judged to be repellent to the test liquid.

The water repellency of the Thetapel AM-5030 treated fabrics achieved high repellency ratings greater than 6 for all fabrics tested, indicating a strong resistance to soiling and staining liquids.

Oil Repellency Drop Test (AATCC Test Method 118-1989)

To evaluate the relative oil repellency of a treated fabric, the Oil Repellency Drop Test is commonly used. In this test, a series of solvent solutions with increasing solvent power are applied to a treated test fabric, with treated surfaces repelling the strongest solvent solution achieving the highest repellency rating. Repellency was measured by applying 3 drops of test liquid and observing wetting of the treated surfaces. Test liquids ranged from weakly wetting mineral oil (1 rating) to strongly wetting decane (6 rating). The higher the number rating of the drop not wetting the surface, the more repellent the surface. If the drops were repelled for longer than 10 seconds the surface was judged to be repellent to the test liquid.

The oil repellency of the Thetapel AM-5030 treated fabrics achieved high repellency with all fabrics achieving at least a 2 rating, with most achieving greater than 4 for the fabrics tested, indicating a strong resistance to soiling and staining liquids.

Water Repellency Spray Test (AATCC Test Method 22-1985)

To evaluate the relative water repellency, and in particular the water beading performance of a treated fabric, the Water Repellency Spray Test is commonly used. In this test, 250mls of distilled water is sprayed from a funnel fitted with a spray head suspended over a fabric stretched across an embroidery hoop positioned at a 45 degree angle and 6 inches beneath the spray head. The hoop is rapped against a solid surface to remove water beaded on the surface and the fabric is rated from 0-100 based on how much of the surface was wet, and the shape of the repelled/beaded water. A 0 rating is fully wet and a 100 rating is no wetting, with the formation of fine beads or pearls of water.

The spray rating of the Thetapel AM-5030 treated fabrics achieved high repellency with all fabrics achieving a 80-100 rating, with most achieving greater than 90 for the fabrics tested, indicating a strong water repellency and resistance to soiling and staining liquids.

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