TECHNICAL DATA SHEET

Thetapel™ AM-5035

Solvent-based Repellent

Overview

- Short-Chain Fluorochemical Technology (meets the goal of the US EPA 2010/2015 PFOA Stewardship Program)
- Fast drying with excellent oil and water repellency

Repellency Data - Textiles
100% Polyester Fabric
For 1.4% actives, ambient cure:
Static Water Repellency rating of 11
Water Repellency/Spray Rating of 80
Oil Repellency rating of 6
For 0.7% actives, ambient cure:
Static Water Repellency rating of 6.5
Water Repellency/Spray Rating of 75
Oil Repellency rating of 5
Untreated substrate had ratings of 0.

Repellency Data - Aniline Leather
For 1.4% actives, ambient cure:
Static Water Repellency rating of 6.5
Oil Repellency rating of 5
For 0.7% actives, ambient cure:
Static Water Repellency rating of 5
Oil Repellency rating of 3
Untreated substrate had ratings of 0.

Repellency Data - Concrete Paver
For 1.4% actives, ambient cure:
Static Water Repellency rating of 11.5
Oil Repellency rating of 5.5
For 0.7% actives, ambient cure:
Static Water Repellency rating of 4.5
Oil Repellency rating of 1.5
Untreated substrate had ratings of 0.

Applications

Solvent-based repellent treatment for:

- Fabrics such as polyester, nylon, cotton, wool, polyolefin, etc.
- Leather and upholstery
- Concrete, granite, marble, tile, etc.

Technical Information

Thetapel AM-5035 is a solvent-based repellent made with acrylic fluoropolymer.
The product provides a repellent barrier on surfaces such as textiles, leather, and hard surfaces such as concrete, grout, saltillo, travertine, limestone, granite, marble, and slate.
Both water and oil repellency benefits are provided.
Thetapel AM-5035 can be used in solvent-based surface treatments and penetrating sealers.

Formulary

Mix well before using.
The optimum loading level should be determined for each application and use.
In general, Thetapel AM-5035 is used in diluted solutions containing 0.7 to 1.4% actives.

Thetapel AM-5035 may be applied with a saturated brush, roller, dip and nip, or a low-pressure type sprayer.

The product is soluble in most polar solvents.
In non-polar solvents, alcohol/hydrocarbon mixtures such as isopropyl alcohol/heptane are recommended.

Typical Properties

PROPERTY	VALUE
Appearance	Clear liquid
Color	Colorless to light pink
Odor	Mild
Active solids, %	35.0 to 36.2
Viscosity@25°C (Brookfield), mPas/cP	80 to 150
Density@25°C	0.95 to 1.05 g/ml
Boiling Point	Approx. 95°C
Flash Point	22°C (closed cup)
Storage	Freeze/Thaw stable. Keep container tightly closed. Store in well-ventilated location. Store at temperatures below 50°C/122°F. Avoid contact with heat, flames, and ignition sources. Incompatible with strong oxidizing agents.
Shelf life	12 months

Packaging and Handling

Thetapel AM-5035 is available in:
55 gallon steel 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: Flammable Liquid

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™ AM-5035

Performance Testing
Water/Alcohol, Water Spray, and Oil Repellency

Preparation of Test Surface Treatment
Thetapel AM-5035 was diluted in t-butyl acetate and applied uniformly to each substrate, followed by ambient cure.

Water/Alcohol Repellency Drop Test (DuPont Test Method)
To evaluate the relative water repellency of a treated substrate, 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 substrate, 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), as well as an extended scale of solutions. 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 control substrates had a water repellency rating of 0.

Oil Repellency Drop Test (AATCC Test Method 118)
To evaluate the relative oil repellency of a treated substrate, 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 substrate, 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 control substrates had an oil repellency rating of 0.

Water Repellency: Spray Test (AATCC Test Method 22)
Water sprayed against a taut surface of a test specimen under controlled conditions produces a wetting pattern whose size depends on the repellency of the fabric substrate.
Ratings range from 0 for complete wetting of the entire face of the specimen to 100 for no sticking or wetting of the specimen.
The control substrates had a water repellency/spray test rating of 0.