TECHNICAL DATA SHEET

Flexipel™ HR-C700

Non-fluorinated Water Repellent Product for Textiles

Overview

- Water repellent product for after-market and mill application on textiles & nonwovens
- Non-fluorinated product
- Fabric substrates include polyester, cotton, cotton/polyester blends, rayon, and nylon

Repellency Data - Textiles
Ambient Cure
(for substrates including polyester, cotton, and blends)
For 2.5% actives owf (10 - 12% as-sold) and ambient cure:
Static Water Repellency rating of 3-4 and Water Repellency/Spray Rating up to 100

Repellency Data - Textiles
Heat Cure
(for substrates including polyester, cotton, and blends):
For 2.5% actives owf (10 -12% as-sold) and heat cure of 160°C for 5 minutes: Static Water Repellency rating of 3-4 and Water Repellency/ Spray Rating up to 100

Applications

- Treatment of textile substrates
- Treatment of nonwoven substrates

Technical Information

Flexipel HR-C700 is a cationic product which provides water repellency for textile and nonwoven substrates. The product is designed for after-market application with ambient cure, and can also be used for mill applications with heat cure.

Formulary

MIX BEFORE USE.

For mill application:
10 -12% Flexipel HR-C700 (as sold) is diluted in water for use. Fabric application by dip and nip or low-pressure spray are recommended, followed by heat cure.

For after-market application:
Dilute 1 part Flexipel HR-C700 (as sold) in 9 parts water. Fabric application by low-pressure spray is recommended, followed by ambient cure.

Typical Properties*

PROPERTY	VALUE
Appearance	Clear to slightly hazy liquid
Color	Colorless to yellow
pH	4 to 5
Water solubility	Dispersible
Solids, %	20 to 22
Ionic Nature	cationic
Density@25°C	0.97 to 1.01 g/ml
Boiling point	100°C
Flash point	96°C
Storage	Protect from freezing
Shelf life	12 months

* Typical properties do not represent specifications.

Packaging and Handling

Flexipel HR-C700 is available in:
drums (441 lb. net wt.)
pails (40 lb. net wt.)

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 are 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.

Flexipel HR-C700
Non-fluorinated Water Repellent for Textiles

Preparation of Test Fabric/Treatment
A treat rate of 2.5% actives on weight of fiber (owf) was used to prepare the test fabric. The Flexipel HR-C700 was diluted in deionized water and applied uniformly to each test substrate by dip and nip application, followed by a heat cure at 160°C for 5 minutes or ambient cure.

Water/Alcohol Repellency Drop Test (The 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 control fabrics had a water repellency rating of 0.

Water Repellency: Spray Test (AATCC Test Method 22
Water sprayed against a taut surface of a fabric test specimen under controlled conditions produces a wetting pattern whose size depends on the repellency of the fabric. 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 fabrics had a water repellency rating of 0.