



FibraLAST® AG-1600

Product Information

FibraLAST® AG-1600 is a non-fluorinated water-repellent product designed for textile applications.

Features

- Acrylic-based aqueous polymer emulsion
- Excellent pad bath stability with a broad range of additives
- Excellent wash durability
- Cationic water repellent
- Nonflammable
- Good dynamic water repellency on a wide range of substrates
- Alkylphenolethoxylate (APEO) free product

Usage

AG-1600 is normally applied using the padding method.

Standard Concentration:

AG-1600: 40 ~ 80 g/L

Blocked isocyanate cross-linking agent: 5 ~ 10 g/L

Note: the concentration differs based on fiber material and purpose.

Standard Processing Conditions:

Drying condition: 100 to 120 °C (212 to 248 F), for 1 to 3 minutes

Curing condition: 130 to 150 °C (266 to 302 F), for 1 to 3 minutes

Note: the conditions may differ based on the texture of the fabric and wet-pickup rate.



Properties

Attribute	Value
Solids	30 ± 1%
pH	3 to 5
Appearance	Milky white emulsion
Density	0.99 g/L
Ionic charge	Cationic
Solubility	Easily diluted in water



Examples of Use

Finishing methods, conditions	Padding method: 1 dip, 1 nip Pressure: 0.2 MPa Drying: 100 °C (212 F) x 90 seconds Curing: 150 °C (302 F) x 90 seconds
Sample of fabrics	Cotton (100%) twill: Wet pickup 70% Nylon (100%) tafetta: Wet pickup 50% Polyester wood pulp (non-woven): Wet pickup 140%
Bath composition	AG-1600: 80 g/L Blocked isocyanate cross-linker: 10 g/L
Evaluation method	Dynamic water repellency: AATCC TM22 Static water repellency: AATCC TM193 Water penetration (nonwovens): AATCC TM42 Hydrostatic pressure (nonwovens): AATCC TM127



Precautions

- AG-1600 is compatible with a wide variety of additives such as penetrating agents, crosslinking agents, softeners, antistatic agents, non-ionic, cationic, and anionic substances.
- Water repellency may be affected when incorporating additives. Fabrics should be re-evaluated for performance after treating with any additives.
- The mixed solution must be used immediately after its mixing process.
- To obtain the best performance, fully wash off hydrophilic substances or ionic substances brought from any previous process.
- When handling, wear appropriate personal protective equipment. Avoid contact with eyes, skin and clothing.
- Do not breathe vapors or mist. Use only with adequate ventilation.
- Store the product in an air-tight container at a temperature between 5 to 35 °C. Keep the containers out of the direct sunlight. Freezing or storing the product for a long period at a high temperature may result in deterioration of product quality.
- Stir well before using.
- The purpose of this technical brochure is to provide information that will be useful to customers. It does not guarantee the product performance.
- See the Safety Data Sheet for further details regarding safe use of this product.



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