

## Shell-Tech Free™ M425-XP



**Shell Tech Free™ M425-XP** was developed to meet industry desire for a higher performing durable water repellent. It is a specialty fluorocarbon-free aqueous finish based on a hydrophobic- reactive polymer designed to impart high water repellency together with excellent wash durability to cotton rich and synthetic fibers. The performance of the **Shell Tech Free M425-XP** is better than the conventional paraffin wax-based products and acrylic based products.

### Physical Properties:

- Appearance: Off white liquid
- pH of 1 % solution: 5.5 (+/- 1)
- Solid Content (%): 27.0 (+/-1)
- Ionic Nature: Nonionic to weakly cationic
- Chemical Structure: Reactive hydrophobic polymer dispersion
- Compatibility: Compatible with cationic and nonionic products
- Stability: Stable to dilute acids
- Miscibility: Miscible with water

### Advantages:

- High Initial Spray-Rating for Synthetics, Cotton rich fabrics, Poly/Lycra & Poly/Cotton blends fabrics.
- Unique Feature: Very High Wash Durability-holds high spray rating upon multi-cycle wash & dry.
- Specially recommended for heavy wt. cotton & denim fabrics for high performance requirement
- This Fluorine-free DWR is very effective even @ low pad-bath concentrations offering high spray rating.
- The product exhibits low-temperature cure benefits.
- Very stable product dispersion does not contain waxes.

*<application information on next page>*

Information contained in this technical data sheet is up-to-date and correct to the best of our knowledge at the date of issue and are subject to change. As Organic Dyes and Pigments LLC cannot control or anticipate the conditions under which this product may be used, each user should review the information in specific context of the planned use. Organic Dyes and Pigments LLC will not be responsible for damages of any nature resulting from the use or reliance upon the information contained in this data sheet. No express or implied warranties are given. Released: RY 04/25 RY

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ISO 9001 Certified



## Padding Process:

- **Shell Tech Free M425-XP** 4.0 %-6.0 % o.w.b. for Polyester & Nylon. For 100% Cotton 8.0 % -12.0 % required based on the fabric wt. & construction
- **Pick-up:** 65-70%
- **Bath pH:** 4.0-5.0; helpful to add 0.1% Acetic or citric.
- For very high wash durability requirement; addition of cross-linker-Altalink Conc. M290-E @ 0.8%-2.0 % o.w.b. based on 4.0% -10.0% of water-repellent **Shell Tech Free M425-XP**
- **Curing:** 150-160° C, 1-2 min OR 170° C for 40- 45 sec fabric temperature.
- **Process Cure:** Based on the Textile Mill Frame cure heat-transfer; zone temp to be set higher to achieve the correct fabric temperature.

## NOTE

- **Shell Tech Free M425-XP** can generally be used with most coating or finishing chemicals; however, laboratory testing for compatibility is suggested.
- For best results with **Shell Tech Free M425-XP** , repellent add-on should be 2-5 %, depending on fabric type.
- The minimum 150° C temperature for curing is recommended.
- If results are not up to mark, then re-curing will help to get better results
- Stir well before use.

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