



## DOWSIL™ IE-8749 Emulsion

Emulsion concentrate for high performance durable water repellent finishes on textiles

### Features & Benefits<sup>1</sup>

- High performance water repellency on a wide range of textiles
- Extended durability of performance (20+ wash / dry cycles)
- Retains the softness of silicone finishes
- Water dilutable
- Does not contain fluorocarbon

<sup>1</sup>When properly formulated, applied, cured and conditioned

### Composition

- High solids silicone emulsion concentrate that can be easily diluted with water

### Applications

- Durable water repellent finishes on textiles

### Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Property	Unit	Result
Appearance		Milky, white liquid
Non-volatile (actives) content	%	69.0–73.0
pH (non-diluted)		10.0–11.5
Surfactants		Non-ionic

### Description

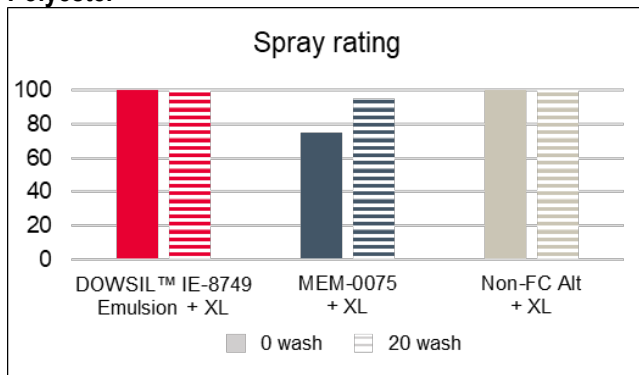
DOWSIL™ IE-8749 Emulsion is a specially formulated silicone emulsion designed to provide high-performance, durable water repellency on all types of fabrics. When used with other ingredients, such as crosslinkers and penetrants, the durable water repellent (DWR) properties can be optimized for each chosen substrate. Fabrics properly finished with DOWSIL™ IE-8749 Emulsion exhibit minimal seam slippage or scratch marks in typical uses.

## How to Use

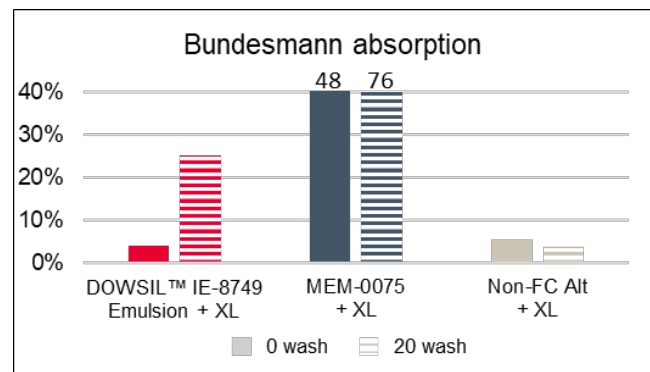
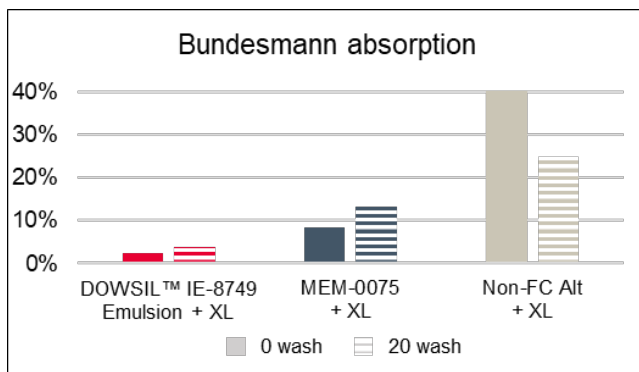
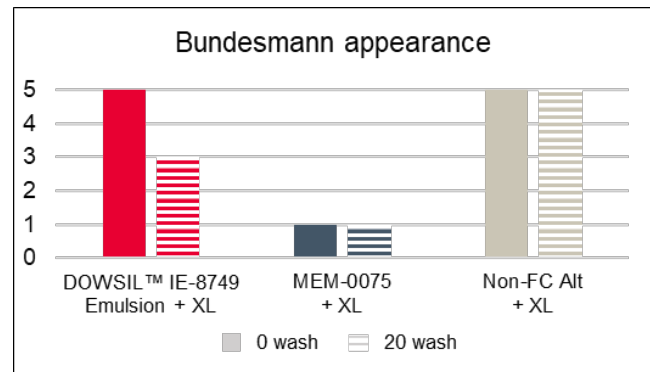
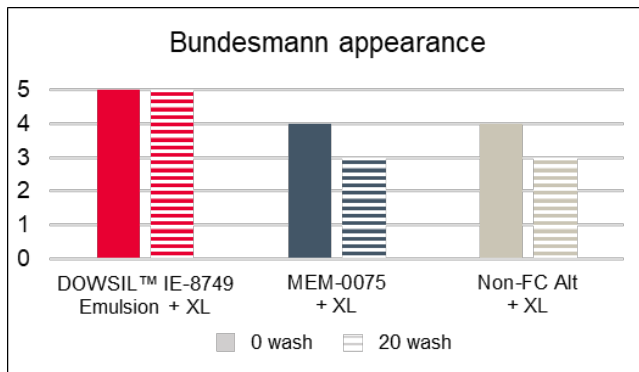
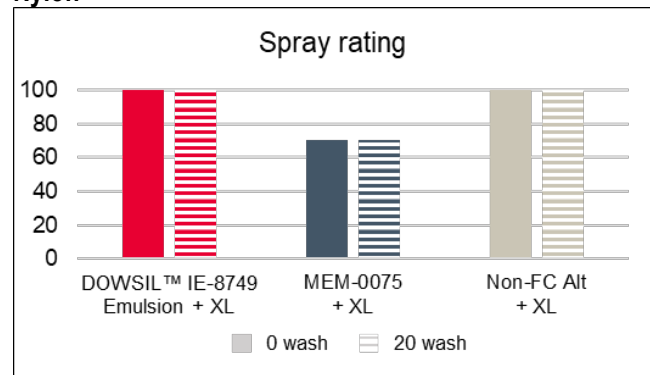
Formulations using DOWSIL™ IE-8749 Emulsion are intended to be applied in a factory in a continuous manner where heat curing can be done to fully set the finish on the fabric. To achieve optimum levels of water repellency and durability, it is recommended to include a blocked isocyanate crosslinker and a glycol penetrant in the formulated finish bath. A typical formulation should be adjusted, based on the fabric pick-up, to enable 2–3% of DOWSIL™ IE-8749 Emulsion actives (solids) on-weight-of-fabric (owf). In addition, a blocked isocyanate crosslinker should be included at a ratio of 4:1 silicone actives to crosslinker actives. Finally, a glycol penetrant is recommended to be added at 1–3% owf. Of course, these values and ratios are a starting point. The formulation parameters for each application should be thoroughly evaluated before commencing with fabric finishing production.

Examples of performance on woven polyester and nylon fabrics. Finishes are at 2% owf DOWSIL™ IE-8749 Emulsion actives and 0.5% owf crosslinker actives, cured at 160°C for 3 minutes. Spray rating testing was done according to AATCC TM22 Spray rating test method. Bundesmann testing was done according to ISO 9865 Textiles -- Determination of water repellency of fabrics by the Bundesmann rain-shower test. Washing/drying was done following the AATCC Monograph 6 methodologies. Wash temperature was 90°F, dryer set to hot.

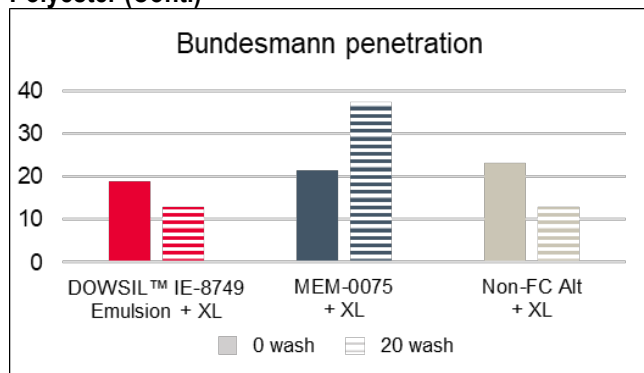
### Polyester



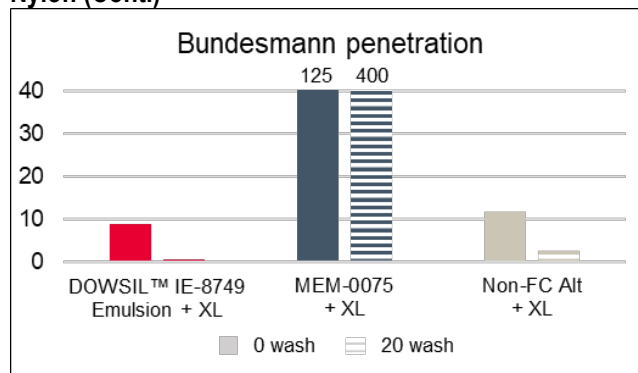
### Nylon



## Polyester (Cont.)



## Nylon (Cont.)



## Handling Precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

## Usable Life and Storage

Shelf life of DOWSIL™ IE-8749 Emulsion is 360 days from date of manufacture. Store between 5°C and 35°C, protect from freezing.

## Packaging Information

DOWSIL™ IE-8749 Emulsion is available in 180 kg drums, 18 kg pails, and 1 kg sample bottles.

## Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

## Health and Environmental Information

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, [dow.com](http://dow.com) or consult your local Dow representative.

## Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

## **Product Stewardship**

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

## **Customer Notice**

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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