



Technical Data Sheet

DOWSIL™ OFX-0400 Fluid

Silicone-ethylene oxide copolymer; 100% active antifoam

Features & Benefits

- Perfectly compatible with polyurethane (PU); not reactive in PU systems
- Dispersible in water, hydrocarbons and alcohol systems; soluble in polar solvents and hydrolytically stable
- Leveling aid for synthetic leather top coatings
- Anti-blocking
- Imparts abrasion resistance
- Effective lubricant at low add-on levels
- Provides degree of static control
- Good performance at high temperatures (> 55°C/131°F)
- Knockdown and persistence improvement
- Nonionic
- Can be added to organic formulations
- Excellent freeze/thaw stability
- Water dispersible and can be incorporated into water-based organic antifoams
- Compatible with a broad range of organic ethoxylates

Applications

- Effective leveling agent for synthetic leather top coatings
- Imparts anti-blocking and also improves mar resistance of the PU coatings
- Can be used in solvent- or water-based systems
- Particularly effective as a finish, or finish ingredient, for texturing and draw twisting
- Also effective for knitting operations
- Drainage improver and performance enhancer for organic papermaking antifoams

Typical Properties

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

CTM ¹	Property	Unit	Result
	Chemical nature		Organopolysiloxane
0176B	Appearance		Light amber to amber liquid
	Active ingredients	%	100
	Specific gravity at 25°C (77°F)		1.022–1.03
	Viscosity at 25°C (77°F)	cSt	280

1. CTM: Corporate Test Method. Copies of CTMs are available on request.

Typical Properties (Cont.)

CTM	Property	Unit	Result
0021A	Flash point, closed cup	°C (°F)	77 (171)
	Suitable diluents		Water, alcohols, glycol ethers

Description

DOWSIL™ OFX-0400 Fluid is a silicone-ethylene oxide copolymer that exhibits useful characteristics in the manufacture and processing of fibers and yarns. Some of these characteristics include lubricity, heat stability, static control, and leveling aid for synthetic leather top coatings. DOWSIL™ OFX-0400 Fluid is a lubricant with hydrophilic (ethylene oxide) and hydrophobic (silicone) portions that are combined into a single molecule.

This allows the lubricity of silicones, which are not usually water-soluble, to be available from aqueous systems and to be removable with an aqueous-based scour. DOWSIL™ OFX-0400 Fluid is water-dispersible.

How to Use

DOWSIL™ OFX-0400 Fluid can be dispersed by adding water either at ambient temperature or cooler. Stir with as much agitation as possible. A dispersion will form that will be stable for several days. If settling occurs or if longer stability is required, a high-shear mixer such as a homogenizer can be used.

Typically 20–30% of the organic active phase of a water-based antifoam is replaced by DOWSIL™ OFX-0400 Fluid. When working with 100% active antifoams, 10–20% of the organic phase is replaced by DOWSIL™ OFX-0400 Fluid.

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

When stored at 25°C (77°F) in the original unopened container, this product has a usable life of 30 months from the date of production.

When stored at or below 16°C (61°F), it will become hazy and solidify to a soft wax that reliquifies on warming. After several months of storage, the material should be thoroughly mixed prior to use.

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 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.

dow.com

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