DOWSIL™ 102F Additive - Fluorosilicone Defoamer



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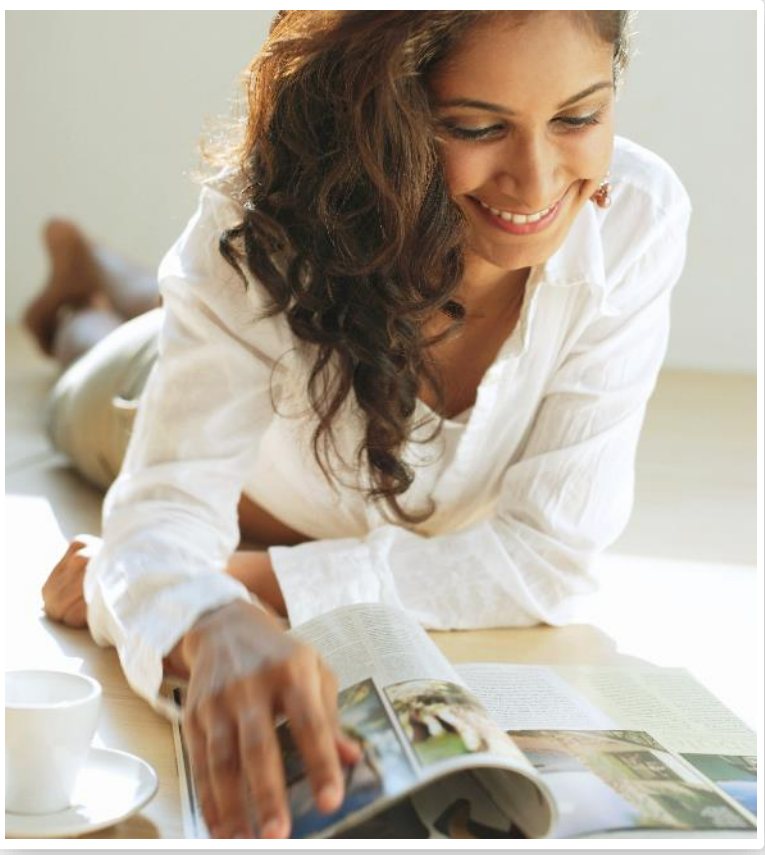
Agenda



- Introduction
- Features and Benefits
- Test Methods
- Performance Data
- Relative positioning of Dow fluorosilicone based antifoams

Foam Generation



- Traditionally associated with waterborne formulations, foam generation also can cause issues during production, filling and application of solventborne and radiation-curable paints, inks and coatings
- Defoaming of high-solids solventborne formulations can be particularly difficult

DOWSIL™ 102F Additive



PRODUCT PROFILE

Test	DOWSIL™ 102F Additive
Appearance	Clear colorless liquid, free from extraneous matter
Solvent carrier	Methyl Ethyl Ketone (MEK) and n-Propyl Acetate
Non Volatile Content	0.95-1.05%

- A foam control agent for use in solvent-based wood coatings and industry coatings
- 1% fluorosilicone in methyl ethyl ketone and n-propyl acetate
- DOWSIL™ 102F Additive is typically added up to 0.7% by weight into the coating formulation

Features and Benefits



Feature	Benefit
Efficient defoaming utilizing low surface tension of fluorosilicone technology	Provides excellent performance
Highly effective defoaming and antifoaming	Increases coating quality and application efficiency
Good balance between effectiveness and compatibility	Increases coating quality and application efficiency
Performs at low concentrations	Lowers cost in use
No export control issues associated with the formulation	Product available globally

Test Methods

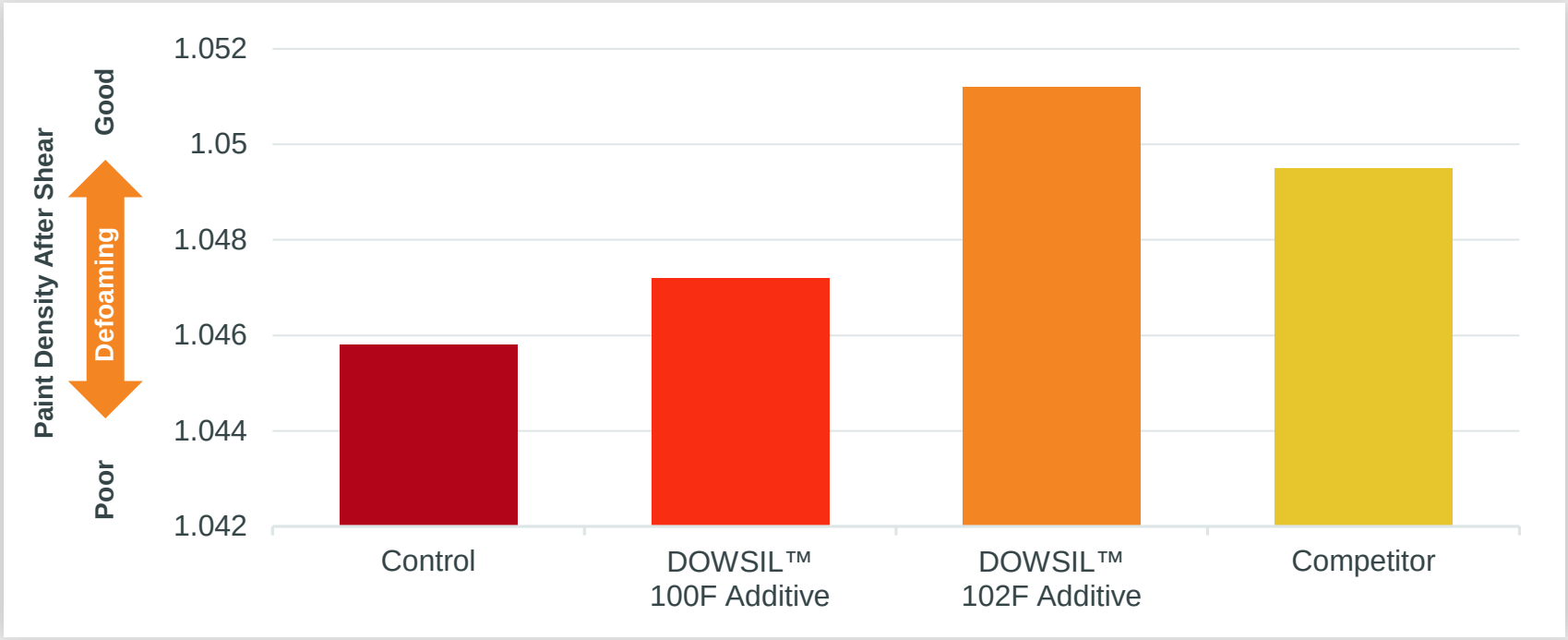
FOAM CONTROL/SOLVENTBORNE WOOD COATINGS

- The coating was dispersed at 3000 RPM for 15 minutes by dissolver blade. The paint density was checked immediately.

FOAM CONTROL/SOLVENTBORNE INDUSTRY COATINGS

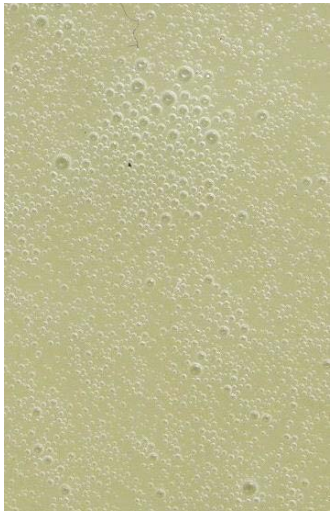
- After shearing 15 minutes at 1500 RPM with dissolver blade, pour the same quantity of paint into flat container and wait for curing. Check the surface appearance after curing.

Foam Control Performance –
high speed stirring test in wood coatings

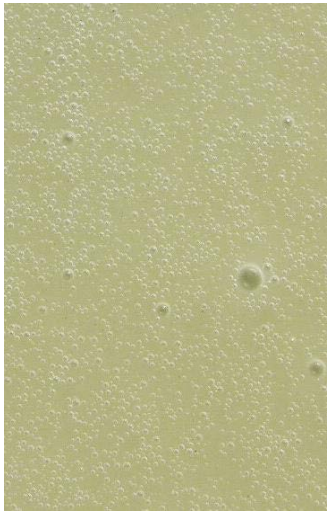


DOWSIL™ 102F Additive at 0.2 weight % as supplied in solventborne 2K PU wood coating. The coating was dispersed at 3000RPM for 15 minutes by dissolver blade. The paint density was checked immediately. The density data indicate that DOWSIL™ 102F Additive provides superior performance to competitor's product as antifoam in this coating system.

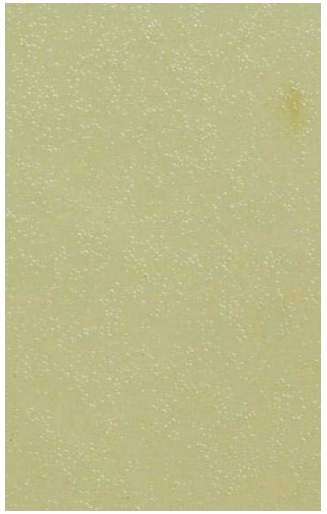
Foam Control Performance –
high speed stirring test in industry coatings



Control



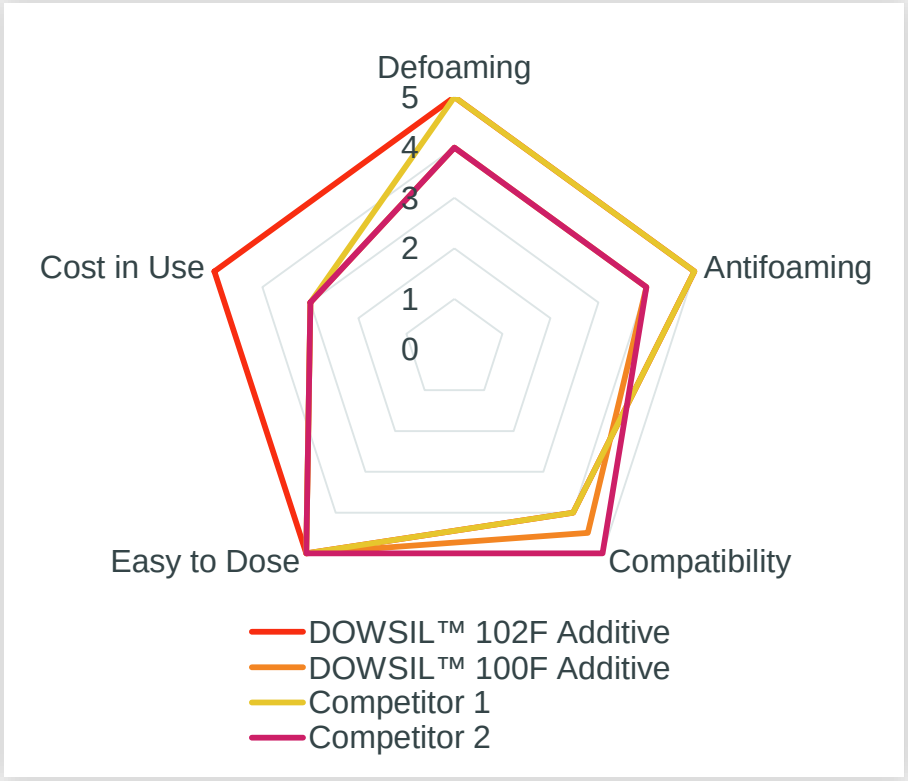
Competitor



DOWSIL™ 102F Additive

DOWSIL™ 102F Additive at 0.4 weight % as supplied in epoxy protective base coat with crosslinker and thinner inside. After shearing 15 minutes at 1500RPM with dissolver blade, pour the same quantity of paint into flat container and wait for curing. Surface appearance after curing show that DOWSIL™ 102F Additive is more effective to control the foam than competitive products indicated by the less bubbles left on the surface by using DOWSIL™ 102F Additive

Differentiated Performance –



Provides high performance defoaming in a cost effective manner

- DOWSIL™ 102F Additive is suitable for applications where strong antifoam is needed, such as protective coatings, wood coatings and flooring coatings and other industry coatings.
- For systems with challenging compatibility, DOWSIL™ 100F Additive or DOWSIL™ 7 Additive may be recommended

Performance Summary



	DOWSIL™ 102F Additive	DOWSIL™ 8621 Additive	DOWSIL™ 100F Additive	DOWSIL™ 7 Additive
Defoaming efficiency	****	****	***	**
Compatibility	**	**	***	****
Cost effectiveness	***	****	**	**
Ease of dosing	****	**	****	**
Global availability	****	****	****	**

**** = excellent * = best

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Thank You



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