Technical Data Sheet

DOWSIL™ 205SL Additive

FEATURES & BENEFITS

- Superior hand feel modifier for multiple delivery coating systems
- Lowers coefficient of friction (CoF)
- Foam control
- Recoatable
- Effective at low addition levels
- BTX-free
- All substances intentionally formulated in DOWSIL™ 205SL Additive are listed on Annex 6 Part B, of the Swiss Ordinance RS 817.023.21[1]
- Very low freeze point for easy storage
- Can be diluted in alcohols, glycol ethers and aromatic solvents
- Hand feel
- Slip
- Defoaming

COMPOSITION

- 50% silicone polyether copolymer in ethylene glycol isopropyl ether

One of a family of multi-purpose additives, this silicone polyether additive provides superior hand feel and defoaming in solventborne, waterborne and radiation curable coatings, inks and overprint varnishes

APPLICATIONS

- Creates a differentiated hand feel the consumer values, which is important for applications such as wood coatings and overprint varnishes
- Suitable across a wide range of substrates, including paper, board, wood and plastics
- Suitable for food packaging inks
- Suitable in pigmented and clear coat formulations

TYPICAL PROPERTIES

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

Test[1]	Property	Unit	Result
CTM 0176 B	Appearance	Pass minimum	Colorless to pale tan, transparent liquid
CTM 0050 AAN	Viscosity at 25°C (77°F)	mm²/s	25–60
	Melting Point	°C (°F)	< -20 (< -4)

[1]CTM: Corporate Test Method; copies of CTMs are available on request.

DESCRIPTION

DOWSIL 205SL Additive is an easy-to-use, high performance silicone polyether additive that gives excellent hand feel in multiple coating formulations at low addition levels.

DOWSIL 205SL Additive also functions as an antifoam, bringing both enabling and problem solving benefits to the formulator and reducing the amount of additives required in the formulation.

HOW TO USE

Effective at low concentrations, DOWSIL 205SL Additive is recommended to use at approximately 0.2% as supplied based on the total formulation (although the amount required depends on the type of formulation). A low viscosity liquid, it can be added and incorporated easily during the letdown stage of the process.

HAND FEEL

DOWSIL 205SL Additive brings a differentiated hand feel performance the end user can feel in multiple delivery systems (Figure 1).

[1]Status on 1 July 2013

ANTIFOAMING PROPERTIES

DOWSIL ™ 205SL Additive also brings foam control in multiple delivery systems, allowing the formulator to simplify formulations and reduce the number of raw materials in their portfolio (Figure 2).

SLIP PERFORMANCE

DOWSIL 205SL Additive reduces the coefficient of friction, especially in solventborne coatings. In a 2K polyurethane-based solventborne wood coating, it gives exceptional CoF reduction (Figure 3).

RECOATABILITY

Laboratory studies have shown that, at recommended use level, coatings containing non-reactive DOWSIL 205SL Additive are recoatable.

LEVELING

As a secondary performance attribute, DOWSIL 205SL Additive will also bring some degree of leveling.

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 WWW.CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Figure 1: Hand feel properties of a solventborne, 2K PU wood coating and a waterborne PUD paint with the addition of DOWSIL 205SL Additive versus competitive additives. Additives were added at 0.2 weight % in the total formulation. The best hand feel performance is seen with DOWSIL 205SL Additive.

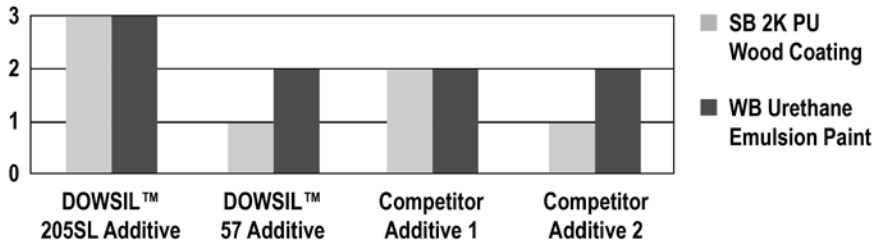


Figure 2: Foam control using DOWSIL 205SL Additive in multiple coatings formulations. Additives were added at 0.2 weight % in the total formulation. Foam control was assessed by measuring foam height after stirring at 5,000 rpm for 1 min.

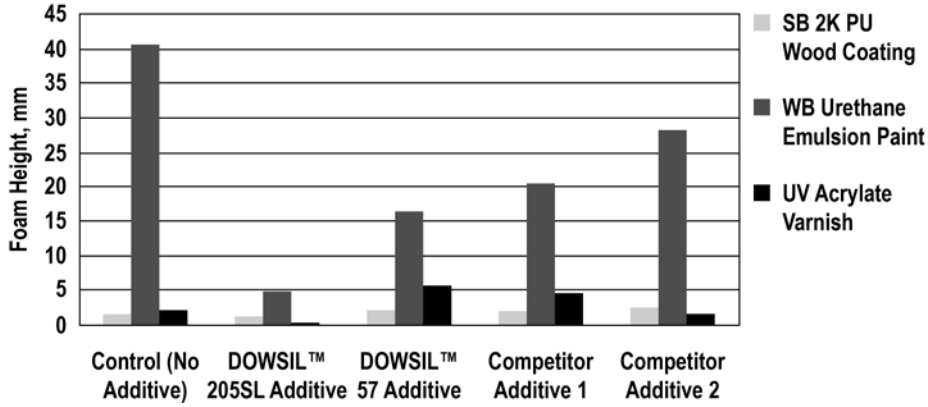
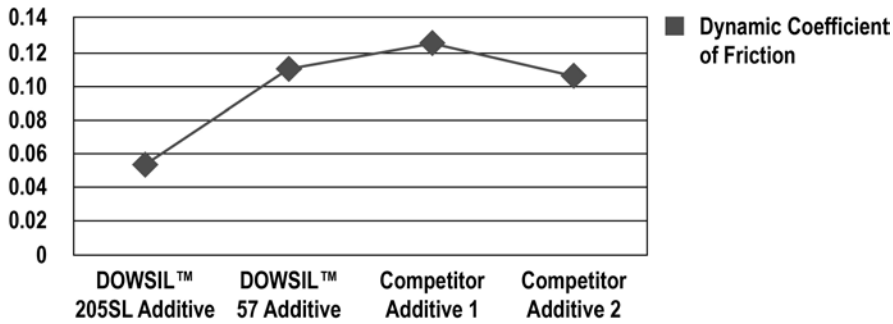


Figure 3: Coefficient of friction of a solventborne, 2K polyurethane wood coating with the addition DOWSIL 205SL Additive versus competitive additives. Additives were added at 0.2 weight % in the total formulation. The best CoF performance is seen with DOWSIL 205SL Additive (Note: Control with no additive has a CoF of 0.58).



PACKAGING INFORMATION

This product is available in 17 kg pails and 190 kg drums.

Samples are available in 120 ml (4 fl oz) containers.

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, www.consumer.dow.com or consult your local Dow representative.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DOW SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.

DOW DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

www.consumer.dow.com