



Technical Data Sheet

DOWSIL™ 30-424 Additive

FEATURES & BENEFITS

- White silicone fine powder
- Contain methacryloxy group
- Light diffusion effect
 - Similar diffusion effect compared to TREFIL E-606 at lower loading
 - Hot spot suppression at lower loading compared to silicone benchmark
 - Homogeneous dispersion throughout the complete light spectrum

COMPOSITION

- Silicone Elastomer Powder

APPLICATIONS

- Additive for polystyrene
 - Light diffuser for backlight module of LCD displayer
- Additive for polycarbonate
 - Light diffuser for plastic cover of LED Lighting

TYPICAL PROPERTIES

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

Property	Unit	Result
Appearance		White powder
Average particle size	µm	2
Particle size distribution	µm	1 - 3
Bulk density	g/ml	0.2

DESCRIPTION

DOWSIL™ 30-424 Additive is a cross-linked methacryloxy functional silicone elastomer powder. Methacryloxy group could provide good dispersion in plastic matrix.

DOWSIL 30-424 Additive can provide good optical performance balance of transmittance, haze as well as diffusion effect. This powder could be used for light diffusion effect for LED lighting as well as for diffusion plate in backlight module of LCD displayer application.

HOW TO USE

When used as polycarbonate additive DOWSIL 30-424 Additive can be applied into twin screw extruder compounding process by pre-blending with the resin pellets or resin powder. Making master batch firstly for DOWSIL 30-424 Powder and then extruding it with resin could be another processing route with better dispersion effect.

Generally the loading of this powder

is approximately 0.1~1% to provide light diffusing effect in final polycarbonate matrix. The optimum level of loading should be determined by actual testing and application conditions.

**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.**

LIGHT DIFFUSING PERFORMANCES AT 0.5% LOADING ON 1.5MM THICKNESS PLATE

Property	Unit	Result
Total transmittance	%	59
Haze value	%	90
Diffusion factor at 600nm (D50)		55

TYPICAL MASTERBATCH FORMULATION (MB-5-E-POWDER)

Product	Dosage (in wt%)
Lexan141R	94.3
30-424 additive	5
Irgafos 168	0.5
Irganox 1010	0.2

TYPICAL FORMULATION USING MASTERBATCH

Product	Dosage (in wt%)
Lexan141R	89.3
MB-5-E-powder	10
Irgafos 168	0.5
Irganox 1010	0.2

USABLE LIFE AND STORAGE

When stored at or below 25°C in the original unopened containers, this product has a usable life of 27 months from the date of production.

PACKAGING INFORMATION

This product is available in 10kg/bag.

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.

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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.

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