



Dow Corning® 30-424 Additive

Proven Solutions in Light Diffusion Materials

Features & Benefits

- White silicone fine powder
- Contains methacryloxy group
- Light diffusion effect
 - Good diffusion effect at lower loading
 - Hot spot suppression at lower loading vs. comparable silicone
- Homogeneous dispersion throughout the complete light spectrum

From tablets and mobile devices to large-area displays such as televisions or kiosks, *Dow Corning® 30-424 Additive* can provide the LCD display application properties you need for backlight modules, LED lighting plastic covers and more.

As a cost-effective additive to polystyrene and polycarbonate, this silicone elastomer powder offers homogeneous dispersion throughout the complete light spectrum, giving you an advantage that's easy to see.

Performance Solutions

Studies and testing prove that *Dow Corning®* brand Additives offer the performance you need for a wide range of LCD displays and LED lighting application characteristics such as transmittance, haze and diffusion.

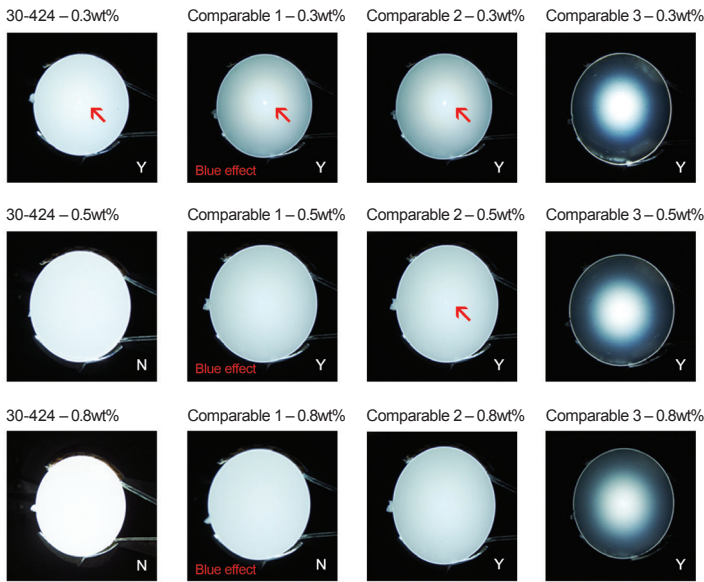
Product	Characteristics	Loading (%)	1.5 mm Thickness Injection Molding on Optical Molds		
			Total Transmittance (%)	Haze (%)	FWHM* (°)
<i>Dow Corning® 30-424 Additive</i>	<ul style="list-style-type: none"> • High diffusivity • High haze • Homogeneous diffusion 	0.5	55	90	60
<i>Dow Corning® Toray TREFIL E-606</i>	<ul style="list-style-type: none"> • Medium diffusivity • High haze • Homogeneous diffusion 	0.8	55	90	55
<i>Dow Corning® Toray EP-2601 Powder</i>	<ul style="list-style-type: none"> • Medium diffusivity • High haze • Homogeneous diffusion 	0.5	60	90	45
Comparable Solutions					
Comparable 1 Si-based	<ul style="list-style-type: none"> • Low diffusivity • High haze • Non-homogeneous diffusion (color effects) 	0.5	70	90	35
Comparable 2 Si-based	<ul style="list-style-type: none"> • Medium diffusivity • High haze • Homogeneous diffusion 	0.8	65	95	45
Comparable 3 Acrylic-based	Non-effective	0.8	92	90	0

* Full width half maximum



Light Diffusion Effect at 1.5 mm Thickness Plate

Hot spot visual check (Y/N)



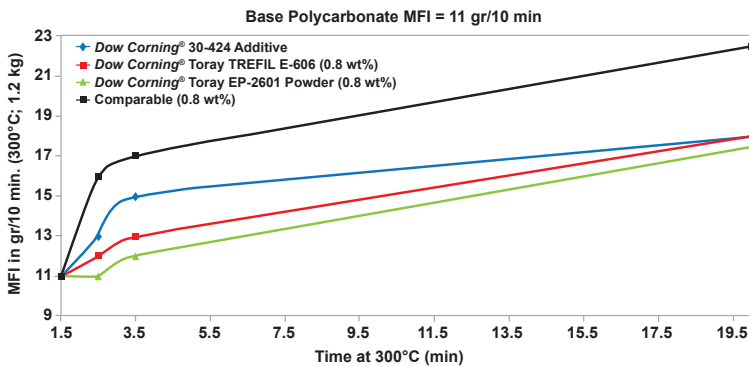
High Consistency of Whole Wavelength; Less Impact on Mechanical Property

Dow Corning products ensure homogeneous diffusion effects amongst all wavelengths when compared to comparable material.

Dow Corning[®] 30-424 Additive was tested for MFI evolution with time at 300° C. When compared to similar products, *Dow Corning*[®] 30-424 Additive indicated better MFI stability.

When *Dow Corning*[®] 30-424 Additive was tested for tensile modulus, tensile strength, impact and UL94, results did not show negative effects on mechanical and flame retardant performance.

Influence on Melt Flow Index (MFI)



MFI test evolution with time at 300° C

Dow Corning products indicate higher MFI stability when compared to comparable products.

Light Diffusion Advances from Dow Corning

For plastics compounders and components manufacturers of light diffusion, Dow Corning can develop customized solutions through collaborative innovation, helping you stay competitive and succeed in today's ever-changing light diffusion markets.

We understand your need for cost-effective materials with high diffusion effect. That's why we can work with you to develop customized light diffusion products that provide reliability, efficiency and flexibility, with lower cost through improved performance and processing.

How can we help you today?

Tell us about your design goals, performance demands and manufacturing challenges and we will put our silicone-based materials expertise and processing experience to work for you.

For samples and more information about our materials and capabilities for the light diffusion industry, visit dowcorning.com/lightdiffusion.

To discuss how we could work together to meet your specific needs, contact dowcorning.com/contactus.

Images: AV21450, AV21451, AV21452

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AMPM345-13

Form No. 26-1964-01

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