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Technical Data Sheet
CAM5, CAM10, CAM15, CAM18 & CAM25

Monosized particles for optical diffuser films and plastics processing

Special features

- Monosized particles
- Narrow particle size distribution
- Homogeneous particle surface
- Crosslinked PMMA particles
- Solvent resistant particles
- Good light transmission
- Uniform light diffusion

Properties

Highly monosized polymer particles give a uniform light diffusion effect. By adding perfect monosized spherical particles to a light diffusion film the brightness of a display is markedly improved.

Typical applications

Light diffusing films for LCD.

To improve the uniformity of direct-lit backlighting, optical diffuser sheets are used between the lamps and the LCD. Their aim is to reduce the direct transmission of the lamps through the LCD and increase the secondary reflections. By adding highly monosized polymer particles to a light diffusion film, the light is scattered evenly and the brightness of a display is markedly improved. The result is a homogeneous illumination of the screen. The monosized beads decrease the loss of the whole light transmittance and increase haze and can be used in areas requiring high optical property.

In optoelectronic applications such as:

- Light Diffuser particles in diffuser film in LCD units

Plastics processing.

Highly monosized and perfect spherical polymer particles can also be used within plastics processing to spread and scatter light in plastic sheets and films to produce even illumination, while allowing light transmission levels of 90% or more. These polymer particles can be added into light diffusing masterbatches.

In plastics processing applications such as:

- Matting and Light Diffusing agent in thermoplastic polymers (film, extrusion)

Solvent resistance

High solvent resistance in solvents such as:

- MEK
- Ethyl Acetate

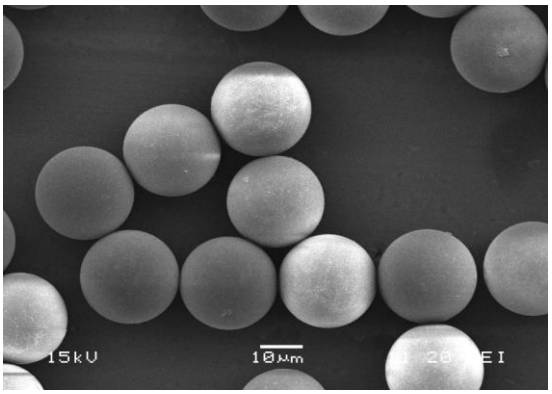
Technical data

	D_{mean} [µm]	CV [%]
CAM5	5	<5
CAM10	10	<5
CAM15	15	<5
CAM18	18	<5
CAM25	25	<5

The CV of the main particle population is typically 1-3 %

Particle properties

Refractive index	1.49
Particle density	1.2 g/cm^3
Heat resistance	250-270 °C



Particle size distribution by Coulter Multisizer 3: