



Spheromers® CA for plastics

Chemical description

Spheromers® CA are perfectly spherical monosized beads made of cross-linked polymethyl methacrylate (PMMA).

Main use

Spheromers® CA can be added to a wide range of plastics and are available in 7 different particles sizes. Spheromers® CA are used as light diffusing agents, anti-blocking agents and can create matte films and structured plastic surfaces.

Typical values

Spheromers®	CA6	CA10	CA15	CA20	CA30	CA40	CA60
D90 [µm]:	6	10	15	20	30	40	60
CV [%]:	<5*						
Refractive index:	1.476 – 1.485						
Oil adsorption [ml/g]:	0.212						
Solubility:	inert in most solvents						
Particle density [g/cm ³]:	1.2						
Bulk density [g/cm ³]:	0.6						
Heat resistance [°C]:	260 – 360**						
Tg (glass transition temperature [°C]):	~130						
*CV % = (standard deviation/average bead diameter) x100							
**TGA measurement: Decomposition at 360 – 390 °C.							

Product properties

The physical and chemical behaviour of Spheromers® CA is the same as for PMMA in general including excellent transparency, good surface hardness, temperature resistance and UV-stability making them attractive as functional additives in plastics.

The combination of chemical composition and perfect spherical shape ensure tough beads that remain unchanged during normal processing conditions.

Applications

The perfectly spherical PMMA beads have extremely narrow particle size distribution that ensures homogeneous and reproducible properties in light diffusing applications.

The light diffusion effect is determined by the difference in refractive index between plastic matrix and polymer particles, the particle diameter and loading level of particles. Spheromers® CA PMMA beads will be effective in engineering plastics including polycarbonate, polystyrene, PET/PETG, ABS and SAN.

Storage and handling

Storage stability is at least 5 years from the date of production when stored dry at temperatures below 25 °C in closed containers. Please close the innerliner of open boxes to avoid moisture pick-up and contamination.

Packaging

Products are available in a 25 kg cardboard box with polyethylene innerliner and 450 kg (18 boxes) on each pallet.

Material safety

Please consult the Safety Data Sheet

Regulatory information

Please contact us for details.

polymerbeads.lamberti.com