



GLOXIL light

iM16k A

iM16k MAM

Functionalized hollow
glass bubbles for
thermoplastics,
thermosets and
elastomers.

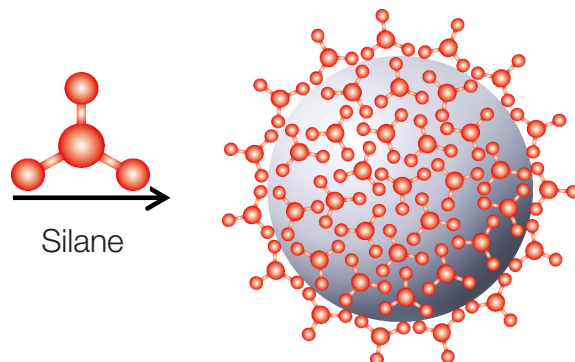
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**HOFFMANN
MINERAL®**



3M™ Glass Bubble



Gloxil Glass Bubble

Characteristics of 3M™ Glass Bubble iM16k

Shape		Hollow, thin-walled, single-cellular spheres
Composition		Borosilicate glass, chemical and water resistant
Softening temperature	°C	600
Density	g/cm ³	0.46
Bulk density	g/cm ³	0.19
Isostatic collapse strength	psi	16000
Color L* (CIELAB)		98
Particle size D ₅₀	µm	22
Particle size D ₉₇	µm	45
Specific surface area BET	m ² /g	2
Volatile matter at 105 °C	%	0.3
Flotation rate	%	96
pH		10
Typical properties, no specification		

Currently available grades

Gloxil light iM16k A		Amino
Gloxil light iM16k MAM		Methacrylic

Further silanes and 3M™ Glass Bubbles on request

Advantages of using 3M™ Glass Bubbles

- Reduction of density
- Decrease in weight
- Lowering of volume costs

Advantages of Gloxil light iM16k A compared to hollow glass spheres without surface modification

Polyamide

Increase in:

- Tensile strength
- Elongation at break
- Flexural strength
- Flexural strain
- Impact strength
- Notched impact strength

Polypropylene

Increase in:

- Tensile strength
- Yield stress
- Yield strain
- Flexural strength
- Impact strength
- Notched impact strength

Advantages of Gloxil light iM16k MAM compared to hollow glass spheres without surface modification

Thermoplastics (potential)

Increase in:

- Yield stress
- Tensile strength
- Yield strain
- Elongation at break
- Flexural strength
- Flexural strain
- Impact strength
- Notched impact strength

Elastomers

Increase in:

- Tensile strength
- Stress values
- Resistance to hot air, water, fuel, and oil