

Lightweight Solutions - Glass Bubbles

3M™ Scotchlite™ Glass Bubbles are microscopic gaseous spheres surrounded by an exceptionally strong glass shell. Their low density and high strength makes them an ideal lightweight additive in automotive applications.

**reduce weight of
plastic parts by
up to 30%**

Glass Bubbles can help:

Reduce part weight

Glass Bubbles can help achieve a weight reduction of up to 30% in interior and exterior plastic components and assemblies.

Improve dimensional stability

The high strength of the Glass Bubbles and the inertness of the glass minimizes warping and shrinkage, providing more control over finished part dimensions.

Improve flow (rheology)

Because they are spherical in shape, Glass Bubbles act like millions of tiny ball bearings, greatly reducing friction.

Increase yield

High crush strength and improved dimensional stability enable injection molders and compounders to meet part tolerances consistently. Higher bubble strength enables improved process survival resulting in process waste reduction.

Increase filler loading/reduce resin demand

A direct result of improved flow is the ability to form highly filled parts more easily. That also means lower mold temperatures and lower injection pressures.

Reduce noise and vibration

Due to their hollow nature, Glass Bubbles act as an excellent insulator, against heat, electricity and even noise.

Application areas

- Interior and exterior trim parts
- Seam sealer for underbody
- SMC (Sheet Molding Compound) body panels
- Fuel tanks
- Bodyside molding and cladding
- BMC (Bulk Moulding Compound) for headlamp reflectors
- Injection molded thermoplastics
- IP retainers / carriers
- Centre consoles
- HVAC components
- Under hood engine covers
- Rear break light housing
- And much more...

Application Examples



Vehicle front end



Rear floor

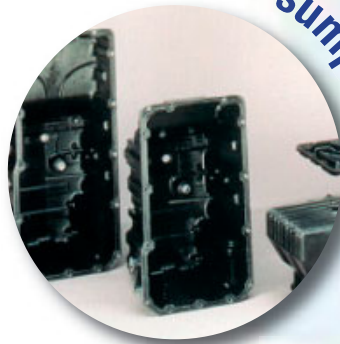


Front fender

Valve cover



Oil sumps



Noise cover



Cross beams



Solutions across every manufacturing process

- Interior
- Exterior
- Paintshop
- Body in White
- Powertrain
- Glazing
- New Technology

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