



Potters Industries Inc.

an affiliate of PQ Corporation

ENGINEERED GLASS MATERIALS DIVISION

Solid Glass Microspheres

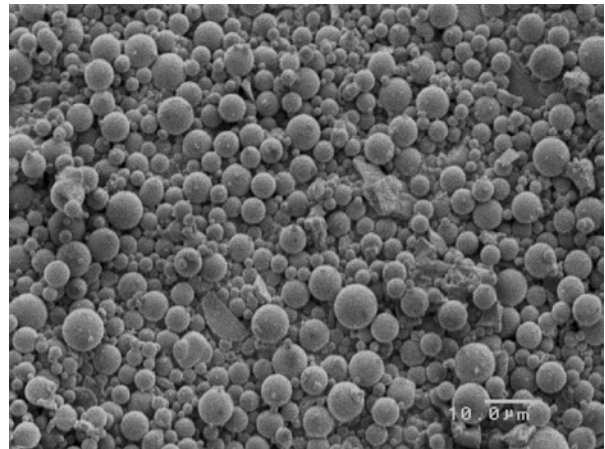
Spheriglass® Solid Glass Microspheres have been developed as a filler for paints, coatings and films, a key feature of this product is the **low alkalinity of the spheres.**

Features

- **Good fluidity and dispersion**
- **Isotropic fillers cause no strain**
- **Low alkaline solubility**

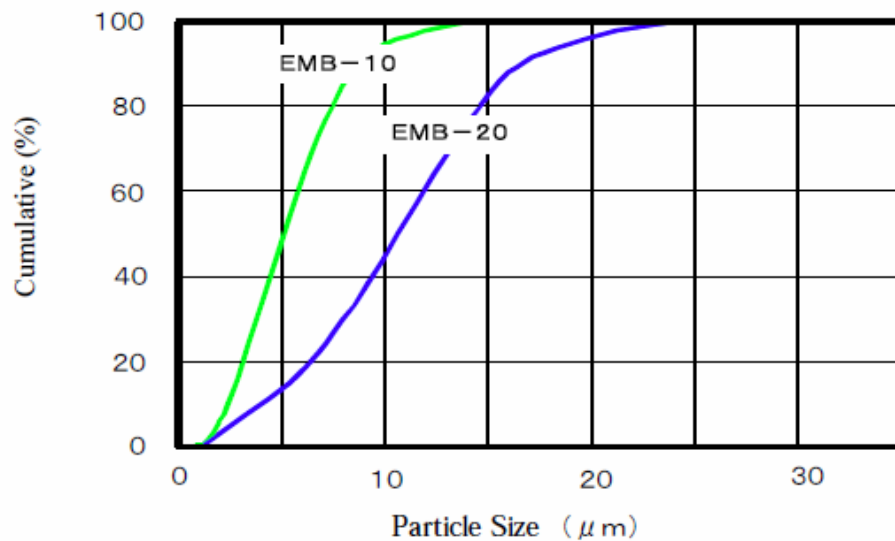
Applications

- **Hardness improvement**
- **Surface matting**
- **High Abrasion Performance**
- **High Heat Resistance**
- **Anti-blocking**



Product	Material	Mean Particle size (μm)	Particle range (μm)
EMB-20	Low Alkaline Borosilicate Glass	10	20~2
EMB-10		5	10~2

Particle Size Distribution (Electric Resistance Method)



Features

- **Good fluidity and dispersion:** Glass Microspheres disperse easily and provide excellent fluidity performance to resin compounds because of the spherical particle shape and controlled particle size distribution.
- **Isotropic fillers cause no strain:** Glass Microspheres is an isotropic filler, the force is equally distributed due to the spherical shape. Glass Microspheres do not cause strain generally caused by anisotropic fillers such as glass fibers and micas.
- **Low alkaline solubility: Low alkaline composition** provides minimal alkaline solubility compared to soda lime glass.

Applications

- **Hardness Improvement:** Glass Microspheres impart surface hardness to coating resin compounds.
- **Surface Matting:** Glass Microspheres provide a matted surface to paint resin compounds.
- **High Abrasion Performance:** Hardness of Glass Microspheres support high abrasion performance of coating resin compounds.
- **High Heat Resistance:** Heat resistance of glass material supports high heat resistance of paints and coating resin compounds.
- **Anti-blocking:** Glass Microspheres provide anti-blocking performance to film resin compounds.

Chemical Composition & Physical properties

Composition	(%) Sample data
SiO ₂	55.5
Al ₂ O ₃	14.0
B ₂ O ₃	5.7
Fe ₂ O ₃	0.2
Na ₂ O, K ₂ O	0.5
MgO	1.0
CaO	23.1
Total	100.0

Properties	Average data
Density	2.6
Refractive Index (n _D)	1.53 ~ 1.57
Hardness (New Mohs' scale)	6.5
Softening Point (°C)	830
Thermal Expansion Coefficient- (x 10 ⁻⁷ /°C)	51
Thermal Conductivity (kcal/mh°C)	0.89
Specific Heat (kcal/kg°C)	0.20

Safety

Material Safety Data Sheets (MSDS) will be supplied upon request.

CONTACT CUSTOMER SERVICE FOR SALES, SAMPLES OR TECHNICAL SERVICE

Call (800) 552-3237
(610) 651-4700
Fax (610) 408-9723

Potters Industries, Inc
P. O. Box 840
Valley Forge, PA 19428-0840

Or Visit Potters Industries At Our Website: www.pottersbeads.com