



Suite #133, 25 Storey Avenue Newburyport, MA 01950  
Phone: 978-465-2705 Email: rfoster@cenostar.

## G-10000 Glass Bubble Microspheres

### Typical Properties of G-10000 Microspheres

CenoStar **G-10000** grade microspheres are engineered hollow glass spheres used to reduce density for oil and gas drilling fluids and drilling cements. Ultra-light inorganic, non-metallic, extremely low-density functional filler that enhance final product properties. These hydrophobic spheres have a wide range of formulations.

#### CenoStar **G-10000**

Microspheres present the following advantages: lower viscosity and improved flow, Reduce the possibility of formation break-down, Reduce the possibility of lost circulation, Increase efficiency of mud removal by allowing pipe rotation or reciprocation, Increase yield per sack of cement, Eliminate need for remedial squeeze

Applications include:

- Oil gas Industry
- Paints and Coatings,
- Syntactic Foam
- Cosmetics
- Resin Systems
- Buoyancy
- Explosives
- Automotive

Appearance, color	White
Particle Size Range, microns by volume	2 - 80 $\mu\text{m}$
d50	~ 40 $\mu\text{m}$
Floating ratio	~92%
True Density (g/cm <sup>3</sup> )	~0.60
Bulk Density (g/cm <sup>3</sup> )	0.39
Compressive Strength	90% survival @ 10000psi / 69 Mpa
Softening Point	625°C
Oil absorption (g/cm <sup>3</sup> )	0.2-0.65
pH value	8-9.5
Silica Content Silica SiO <sub>2</sub> (%)	68-75
Aluminum Oxide Al <sub>2</sub> O <sub>3</sub> (%)	2-3
Thermal Conductivity (W/m "k"@18°C)	

#### Packaging:

CenoStar **G-10000** Microspheres are supplied in plastic bags placed in cardboard boxes

#### Safety Information:

In dusty areas, the use of a NIOSH approved respirator is recommended. Material Safety Data Sheets (MSDS) are available upon request

**Notice to Purchaser:** The information in this publication is based on tests that we believe are reliable. Your results may vary due to differences in test conditions. You must evaluate and determine whether the product is suitable for your intended application. Since conditions of product use are outside of our control and may vary widely, the information is made available with no expressed or implied warranties (including the warranties of merchantability or fitness for a particular purpose). CenoStar Corporation's only obligation, and your only remedy, is replacement of product if shown to be defective when received. In no case will CenoStar Corporation be liable for any special, incidental, or consequential damages based on breach of warranty or contract, negligence, strict tort, or any other theory.