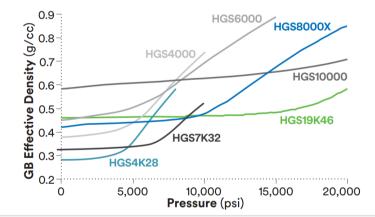
Glass Bubbles HGS Series

Low-density, high-strength 3M[™] Glass Bubbles HGS Series help achieve the highest strength-to-weight cement designs.

When cementing across highly depleted zones and weaker formations, low-density systems are required to prevent/minimize problems associated with fluid loss/lost circulation, including reduced top-of-cement (TOC) and formation damage/reduced well productivity.

Product	Nominal Density (g/cc)	D ₅₀ (Microns)	Isostatic Crush Strength*	
			Minimum Fractional Survival	Test Pressure (psi)
HGS4K28	0.28	30	80%	4,000
HGS4000	0.38	40	80%	4,000
HGS6000	0.46	40	80%	6,000
HGS10000	0.60	30	90%	6,000
HGS7K32	0.32	25	80%	7,000
HG\$8000X	0.42	26	90%	8,000
HGS19K46	0.46	20	80%	19,000

Typical Physical Properties



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Applications

Use as a filler for light weight cement slurries and drilling fluids. Refer to mixing manual as needed.

Advantages:

- Engineered best in class •
- Consistency batch-to-batch
- Best density reduction capacity
- Lowest effective density at any pressure
- Highest strength-to-weight cement design and lowest permeability .
- Reduced Wait-On-Cement (WOC)

Limitations

- Predetermined slurry target density •
- Limitations to mixing "on the fly"

Toxicity and Handling

Information on biological data can be provided upon request. Handle in accordance with the Material Safety Data Sheet (MSDS) and general requirements for working with industrial reagents

Packaging and Storage

Product is packaged in big bags with mass depending on type of product.

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