

## 3M K20 Glass Bubbles

Category : Ceramic , Glass

### Material Notes:

3M™ Glass Bubbles are engineered hollow glass microspheres that are alternatives to conventional fillers and additives such as silicas, calcium carbonate, talc, clay, etc., for many demanding applications. These low-density particles are used in a wide range of industries to reduce part weight, lower costs and enhance product properties. The unique spherical shape of 3M glass bubbles offers a number of important benefits, including: higher filler loading, lower viscosity/improved flow and reduced shrinkage and warpage. It also helps the 3M glass bubbles blend readily into compounds and makes them adaptable to a variety of production processes including spraying, casting and molding. The chemically stable soda-lime-borosilicate glass composition of 3M glass bubbles provides excellent water resistance to create more stable emulsions. They are also non-combustible and nonporous, so they do not absorb resin. And, their low alkalinity gives 3M glass bubbles compatibility with most resins, stable viscosity and long shelf life. Information provided by 3M

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_3M-K20-Glass-Bubbles.php](http://www.lookpolymers.com/polymer_3M-K20-Glass-Bubbles.php)

Physical Properties	Metric	English	Comments
Density	0.180 - 0.220 g/cc	0.00650 - 0.00795 lb/in <sup>3</sup>	
	0.200 g/cc	0.00723 lb/in <sup>3</sup>	
Volatiles	0.50 %	0.50 %	
Particle Size	30 μm	30 μm	10th%
	60 μm	60 μm	50th%
	90 μm	90 μm	90th%
	105 μm	105 μm	Effective Top Size

Mechanical Properties	Metric	English	Comments
Compressive Strength	3.45 MPa	500 psi	

Thermal Properties	Metric	English	Comments
Thermal Conductivity	0.0700 W/m-K	0.486 BTU-in/hr-ft <sup>2</sup> -°F	
Maximum Service Temperature, Air	600 °C	1110 °F	

Electrical Properties	Metric	English	Comments
Dielectric Constant	1.2 - 1.7	1.2 - 1.7	
	@Frequency 1.00e+8 Hz	@Frequency 1.00e+8 Hz	

Descriptive Properties	Value	Comments
Alkalinity	<0.5 milliequivalents/gram	
Appearance	White	unaided eye
Chemical Resistance	soda-lime-borosilicate glass	
Oil Absorption	0.2-0.6 g oil/100 cc	ASTM D1483

## Contact Songhan Plastic Technology Co.,Ltd.

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