

## Trelleborg AEM Eccospheres® SID-160Z Sodium Borosilicate Glass Microspheres

Category : Ceramic , Glass , Other Engineering Material , Additive/Filler for Polymer

### Material Notes:

Eccospheres® glass microspheres are hollow thin-walled glass microspheres composed of sodium borosilicate glass. To the naked eye they resemble a fine, white, free-flowing powder. However, magnification reveals them to be near perfect spheres. Properties: High temperature resistance, Good density/strength ratios, Clean surface chemistry, Narrow particle size distribution, Low thermal conductivity, Low dielectric constant, Low dissipation factor. The SID series has the same chemical composition as the SI series, however, due to our unique manufacturing capabilities this series exhibits improved strength, without sacrificing density. High strength ensures survival of the spheres in aggressive processes such as extrusion. All the grades in this series are acid washed to provide a clean surface for either a resin system or surface treatment to bond to. All information provided by Trelleborg Emerson & Cuming

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Trelleborg-AEM-Eccospheres-SID-160Z-Sodium-Borosilicate-Glass-Microspheres.php](http://www.lookpolymers.com/polymer_Trelleborg-AEM-Eccospheres-SID-160Z-Sodium-Borosilicate-Glass-Microspheres.php)

Physical Properties	Metric	English	Comments
Pellet Density	0.140 - 0.180 g/cc	0.00506 - 0.00650 lb/in <sup>3</sup>	ASTM D2840
Particle Size	60 µm	60 µm	TEC QSD
pH	6.5 - 9.0	6.5 - 9.0	ASTM D4876

Mechanical Properties	Metric	English	Comments
Modulus of Elasticity	62.0 GPa	8990 ksi	
	@Temperature 25.0 °C	@Temperature 77.0 °F	
	62.0 GPa	8990 ksi	
	@Temperature 25.0 °C	@Temperature 77.0 °F	

Thermal Properties	Metric	English	Comments
Thermal Conductivity	0.0730 - 0.125 W/m-K	0.507 - 0.868 BTU-in/hr-ft <sup>2</sup> -°F	
Softening Point	800 °C	1470 °F	ASTM E794

Optical Properties	Metric	English	Comments
Refractive Index	1.448	1.448	
	@Wavelength 1500 nm	@Wavelength 1500 nm	
	1.458	1.458	
	@Wavelength 589.3 nm	@Wavelength 589.3 nm	

Optical Properties	Metric	English	Comments
Electrical Properties	Metric	English	Comments
Dielectric Constant	1.36 - 1.63	1.36 - 1.63	ASTM D150
	@Frequency 1e+8 Hz	@Frequency 1e+8 Hz	
Dissipation Factor	0.00050	0.00050	ASTM D150
	@Frequency 1.00e+6 - 8.60e+9 Hz	@Frequency 1.00e+6 - 8.60e+9 Hz	

Processing Properties	Metric	English	Comments
Moisture Content	<= 1.0 %	<= 1.0 %	TED QSD

Descriptive Properties	Value	Comments
Floatation (% bulk volume)	99	TEC QSD
Isostatic Collapse Pressure, Min. 80% Survival (psi)	600	ASTM D3102
Packing Factor (min)	62	

## Contact Songhan Plastic Technology Co.,Ltd.

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