



## Recycled Type I Borosilicate Glass

## Technical Data

### Description

Recycled Borosilicate Glass grades are made from 100% Type I, 33 Expansion borosilicate glass in a low-iron processing environment. They provide a clear material that is specially selected for a range of potential innovative applications. X-ray diffraction and scanning electron microscopy confirm that the Borosilicate Glass products are fully amorphous and contain no crystalline silica. The Type I 33 Expansion material is compatible in most applications with Pyrex 7740, Schott, Kimble, Kavalier Simax, Nipro, and Gerresheimer sourced borosilicate equivalents. Vitro Minerals' unique processing system provides consistent product quality and uniform particle size distribution for four grades, covering a range of potential user requirements.

### Typical Chemical and Physical Properties

NOT FOR SPECIFICATION PURPOSES

Typical Chemical Composition (percentage by weight): SiO<sub>2</sub> 80.6%; B<sub>2</sub>O<sub>3</sub> 13.0%; Na<sub>2</sub>O 4.0%; Al<sub>2</sub>O<sub>3</sub> 2.3%; Misc traces 0.1%; LOI <0.5%. These oxides are combined in an amorphous (non-crystalline) state in a silicate glass.

	B-Chips	B-441*	B-100/325	B-325	Test Procedure
Specific Gravity	2.23	2.23	2.23	2.23	ASTM C153
Bulk Density, lb/ft <sup>3</sup>	60	60	60	50	ASTM C110
% passing 325 mesh	Nil	Nil	<5	>95	ASTM C25
Size range, mesh	3/8" by 0	4-100	100-300	<325	ASTM C136
pH	10-11	10-11	10-11	10-11	AFS 113-87S
Color	white	white	white	white	
Refractive index	1.47	1.47	1.47	1.47	ASTM D801 Sodium D Line
Hardness	5.5	5.5	5.5	5.5	Mohs Scale
Free moisture, %	<0.5	<0.5	<0.5	<0.5	ASTM C566

\* Suitable for ASTM C-441 testing protocols. Standard package is 100 lb box with separated mesh fractions: #8-16, 25 lb; #16-30 25, lb; #30-50, 25 lb; #50-100, 15 lb.

### Product Information/Customer Service

Phone: 678-729-9333; Fax: 678-750-0105  
Email: [technicalsales@vitrominerals.com](mailto:technicalsales@vitrominerals.com)

Standard Package: 50-lb bags, 2,800 lbs/pallet, 40 x 48 pallet, shrinkwrapped; 2,500-lb supersacks.

FOB plant, Jackson, Tennessee

**Disclaimer:** The statements in this bulletin are based on data which is believed to be reliable, and is offered in good faith to be applied accordingly to the user's best judgment. Since operating conditions at customer's sites are beyond our control, Vitro Minerals will not assume responsibility for the accuracy of this data, or liability which may result from the use of its products. Likewise, no patent liability is assumed for use of Vitro Mineral products in any manner which could or would infringe on patent rights of others.

**Health Hazard Warning:** Prolonged inhalation of dust associated with the materials described in this data sheet can cause delayed lung injury. Avoid creating dust when handling, using or storing. Follow OSHA Safety and Health Standards for fugitive dust. Current Material Safety Data Sheet containing safety information is available and should be consulted before usage.

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