

BOROSILICATE GLASS PROPERTIES

Unless otherwise specified, all UFO Labglass (S) Pte Ltd technical glassware meets ASTM specification E438 for Type I, Class A borosilicate glass. Glassware is manufactured from PYREX Glass Code 7740 or equivalent.

<u>Major Physical Characteristics Major Physical Characteristics</u>	<u>Type I, Class A Type I, Class A</u>	<u>PYREX®</u>
Linear Coefficient of Expansion	$32-33 \times 10^{-7} \text{ cm/cm/}^\circ\text{C}$	$32.5 \times 10^{-7} \text{ cm/cm/}^\circ\text{C}$
Strain Point		510°C
Annealing Point	$560^\circ\text{C} \pm 10^\circ\text{C}$	560°C
Softening Point	$815-820^\circ\text{C} \pm 10^\circ\text{C}$	821°C
Density, annealed	$2.23-2.24 \pm 0.02 \text{ g/cm}^3$	2.53 g/cm^3
Refractive Index		1.474 @ Sodium D Line
Temperature Limits		490°C (Extreme Service) 230°C (Normal Service)
Maximum Thermal Shock		160°C
<u>Chemical Composition</u>	<u>Type I, Class A</u>	<u>PYREX®</u>
SiO ₂	81%	80.6%
B ₂ O ₃	13%	13.0%
Na ₂ O	4%	4.0%
Al ₂ O ₃	2%	2.3%