

**Structure**

White Flashed Opal Glass consists of a colorless base glass which serves as a carrier material and a thin white flashed layer. White Flashed Opal Glass is manufactured with a constant white flashed layer of about 1mm (04”) thick over clear. Can be tempered if needed.

**Transmission**

The transmission properties of White Flashed Opal Glass are for the most part dependent solely on the white layer, the thickness of which varies over the manufacturing width and is generally in the order of  $0.45 \pm 0.20$  mm. The visual light transmission in the case of standard illuminant A is on average  $\tau_{VA} = 35\%$  ( $\pm 10\%$ ).

**Light Diffusion**

In the visible range of the spectrum DESAG White Flashed Opal Glass gives almost ideal diffusion. In the near infrared range a directed component is superimposed which appears on the diffusion indicatrix (fig.> 2) as a small “nose”. From  $\lambda = 800$  nm the proportion of the directed transmission increases relatively sharply and where  $\lambda = 2000$  nm, values of 50 % may be reached.

**Chemical Properties**

White Flashed Opal glass is largely insensitive to the action of water, acids, alkalis and salt solutions (with the exception of hydrofluoric acid).

**Electrical Properties**

Specific electrical resistivity  $> 10^{10} \Omega/\text{cm}$ .

**Thermal Properties**

Thermal conductivity at  $90^\circ\text{C}$   $\lambda = 1.06 \text{ W}/(\text{m} \cdot \text{K})$ . Transformation temperature  $T_g = 521^\circ\text{C}$   
 Mean linear thermal coefficient of expansion  $\alpha$  (20-300  $^\circ\text{C}$ ):  $9.5 \cdot 10^{-6} \text{ K}^{-1}$

**Mechanical Properties**

Compressive strength 800-930  $\text{N}/\text{mm}^2$   
 Bending tensile strength 30  $\text{N}/\text{mm}^2$  (characteristic value)  
 Density  $\rho = 2.6 \text{ g}/\text{cm}^2$

**Dimensions:**

Thickness (mm)	Max Dimensions
2.7mm - 3.3mm	55" x 67"
4.0mm - 5.0mm	55" x 67"

