

## Dark Gray Glass Data Sheet

#### Overview:

Dark Gray glass, sometimes called Black glass, is a standard soda lime based product that delivers optimum levels of solar control together with a fashionable, nearly black appearance. Dark Gray glass can be heat strengthened, heat tempered and laminated. The daylight transmittance of Dark Gray glass is 8 percent, making it ideal for glare control and privacy glazing.

#### **Features and Benifits:**

- Dark Gray glass helps protect interior fabrics and colors from fading by blocking up to 94% of the sun's ultraviolet energy, more than any architectural glass on the market today.
- Dark Gray glass combines superior heat-load reduction and solar control with a distinctive color contrast. Its shading coefficient is among the lowest of any uncoated glass.

#### **Material Properties:**

| Modulus of Elasticity (Young's)            | 10.4 x 10 <sup>6</sup> psi | 72 GPa                       |  |  |
|--|----------------------------|------------------------------|--|--|
| Modulus of Rigidity (Shear)                | 4.3 x 10 <sup>6</sup> psi  | 30 GPa                       |  |  |
| Poisson's Ratio                            | 0.23                       | 0.23                         |  |  |
| Refractive Index                           | 1.52                       | 1.52                         |  |  |
| Bulk Modulus                               | 6.2 x 10 <sup>6</sup> psi  | 43 GPa                       |  |  |
| Density                                    | I 56 lb/ft <sup>3</sup>    | 2500 kg/m³                   |  |  |
| Coefficient of Thermal Stress              | 50 psi/°F                  | 0.62 MPa/°C                  |  |  |
| Thermal Conductivity at (75°F)             | 6.5 Btu.in/hr.°F.ft²       | 0.937 W.m/m <sup>2</sup> .°C |  |  |
| Specific Heat at (75° F)                   | 0.21 Btu/lbm.°F            | 0.88 kJ/kg.°C                |  |  |
| Coefficient of Linear Expansion (75-575°F) | 4.6 x 10 <sup>-6</sup> °F  | 8.6 x 10 <sup>-6</sup> /°C   |  |  |
| Hardness (Mohs Scale)                      | 5 - 6                      | 5 - 6                        |  |  |
| Softening Point (ASTM C 338)               | 1319°F                     | 715°C                        |  |  |
| Annealing Point (ASTM C 336)               | 1018°F                     | 548°C                        |  |  |
| Strain Point (ASTM C 336)                  | 952°F                      | 511°C                        |  |  |
| Specific Gravity                           | 2.53                       | 2.53                         |  |  |
| Emissivity at (75°F)                       | 0.84                       | 0.84                         |  |  |

#### **Dimensions of Standard Products**

| Thickness   | 0.118" to .236" | 3 mm to 6 mm      |  |
|-------------|-----------------|-------------------|--|
| Stock Sizes | 84" x 72"       | 2134 mm x 1830 mm |  |



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#### **Solar Performance Values**

| Glass Thickness | Transmittance |          |           | Reflectance  |          |              |
|-----------------|---------------|----------|-----------|--------------|----------|--------------|
| mm              | UV%           | Visible% | Infrared% | Total Solar% | Visible% | Total Solar% |
| 3.0             | 8             | 24       | 18        | 22           | 5        | 4            |
| 5.0             | 8             | 26       | 18        | 21           | 4        | 4            |
| 6.0             | 7             | 26       | 18        | 23           | 5        | 4            |

### Performance Data: (data collected on 3mm thickeness)

#### Transmission Curve

