Kuraray Butacite®

PVB SAFETY GLASS INTERLAYERS
Butacite® polyvinyl butyral (PVB) thermoplastic sheeting is pliable, tough and used worldwide as an interlayer in laminated safety glass sold in North & South America as well as in the Asia Pacific region.

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Kuraray Glass Laminating Solutions PVB interlayers deliver proven, consistent performance in architectural glass and transportation applications.

Supplied to glass laminators as rolled sheet material, Kuraray Butacite® PVB interlayers are available in clear sheet form, and in time-proven colors serving architectural and automotive safety glass markets.
Automotive compositions: Butacite® B551, B552 and B553
Rolls are formulated for controlled adhesion to glass, and optimum impact performance in laminated, highly penetration-resistant windshields.

B551: Smooth pattern
B552: Universal pattern
B553: Rough pattern

<table>
<thead>
<tr>
<th>Type</th>
<th>Color Description</th>
<th>Color Code</th>
<th>Standard Roll Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear</td>
<td>Clear</td>
<td>NC 010</td>
<td>250 m or 500 m (820 ft or 1640 ft)</td>
</tr>
</tbody>
</table>

Solid Colors

- Charcoal Gray Light Transmittance = 18%
  - Color Code: 0741800
  - Roll Length: 250 m or 500 m (820 ft or 1640 ft)

- Murano Green Light Transmittance = 80%
  - Color Code: 1378000
  - Roll Length: 250 m or 500 m (820 ft or 1640 ft)

Gradient Tinted On Clear Sheets

- Gray on Clear
  - Color Code: 8003510
  - Roll Length: 250 m or 500 m (820 ft or 1640 ft)

- Blue on Clear
  - Color Code: 8100506
  - Roll Length: 250 m or 500 m (820 ft or 1640 ft)

- Green on Clear
  - Color Code: 8312512
  - Roll Length: 250 m or 500 m (820 ft or 1640 ft)

Roll Packaging: 250 m (820 ft) rolls = 4 rolls/case; 500 m (1640 ft) rolls = 2 rolls/case
(All automotive compositions are 0.76 mm (30 mil) caliper)

All Butacite® compositions are formulated to absorb nearly all naturally occurring ultraviolet (UV) radiation from sunlight. Glass laminates containing Butacite® polyvinyl butyral sheeting give long-term stability in outdoor service, with built-in UV filtering of clear sunlight.

Standard Packaging

To prevent blocking, Butacite® PVB sheet is supplied either:

1. refrigerated, i.e. maintained between 2 °C and 10 °C (36 °F and 50 °F); or
2. interleaved, i.e. separated with thin PE film.

Sheeting is wound on 152 mm (6 in.) inside diameter (I.D.) cores.

Rolls are packaged in single boxes (horizontal) for widths above 165 cm (65 in.). Smaller widths are normally shipped in 4-roll cartons packed vertically on a pallet.

Two-roll packages are also available for 500 m (1640 ft) length rolls.

The interlayer is protected from moisture changes during shipping and storage by a moisture-barrier bag. Once the package has been opened, the roll should be stored in an environment close to 30% relative humidity.

The product weight per roll for Butacite® interlayer may vary slightly according to roll length, width and caliper as these three measurements can be different per roll based on our published specifications and tolerances. The net weight shown on our product labels is an estimate based on our average tolerances and consequently may be different from the true net roll weight. As Butacite® is sold per square meter (square feet) this slight net weight variability does not affect the cost of the product.
Architectural compositions: Butacite® B50
Grades can be obtained in all standard architectural thicknesses up to 2.28 mm (90 mil). Sheet properties have been developed to meet the requirements set in the major code systems worldwide (ISO, CEN, ASTM, JIS etc.)

Uniformly-colored compositions: Butacite® B51 and B52
Butacite® B51 and B52 are designed for use in architectural and transportation glazing where reduced light-transmittance is desired.

<table>
<thead>
<tr>
<th>Description</th>
<th>Product code</th>
<th>Color code</th>
<th>Thickness, mm (mil)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear</td>
<td>B51</td>
<td>NC 010</td>
<td>0.38 (15)</td>
</tr>
<tr>
<td></td>
<td>B52</td>
<td>NC 010</td>
<td>0.76 (30)</td>
</tr>
<tr>
<td></td>
<td>B53</td>
<td>NC 010</td>
<td>1.14 (45)</td>
</tr>
<tr>
<td></td>
<td>B54</td>
<td>NC 010</td>
<td>1.52 (60)</td>
</tr>
<tr>
<td></td>
<td>B56</td>
<td>NC 010</td>
<td>2.28 (90)</td>
</tr>
</tbody>
</table>

Uniformly colored

<table>
<thead>
<tr>
<th>Color</th>
<th>Product code</th>
<th>Color code</th>
<th>Thickness, mm (mil)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azure Blue - LT: 76%</td>
<td>B51</td>
<td>0637600</td>
<td>0.38 (15)</td>
</tr>
<tr>
<td>Bronze - LT: 52%</td>
<td>B52</td>
<td>0645200</td>
<td>0.76 (30)</td>
</tr>
<tr>
<td>Dark Blue* - LT 50%</td>
<td>B51</td>
<td>0635000</td>
<td>0.38 (15)</td>
</tr>
<tr>
<td>Gray - LT: 44%</td>
<td>B51</td>
<td>0654400</td>
<td>0.38 (15)</td>
</tr>
<tr>
<td>Light Blue-green LT: 73%</td>
<td>B51</td>
<td>0377300</td>
<td>0.38 (15)</td>
</tr>
<tr>
<td></td>
<td>B52</td>
<td>0377300</td>
<td>0.76 (30)</td>
</tr>
<tr>
<td>Soft White* - LT: 80%</td>
<td>B51</td>
<td>0218000</td>
<td>0.38 (15)</td>
</tr>
<tr>
<td>Translucent White - LT: 65%</td>
<td>B51</td>
<td>0216500</td>
<td>0.38 (15)</td>
</tr>
<tr>
<td></td>
<td>B52</td>
<td>0216500</td>
<td>0.76 (30)</td>
</tr>
</tbody>
</table>

*Available by special order; contact your DuPont Glass Laminating Solutions sales representative.

Uniformly colored and gradient tinted Butacite® color code numbers
The first three digits of the seven-digit product number define the color formula. The 4th and 5th digits define the visible light transmittance in the darkest region. The 6th and 7th digits describe color gradation in inches, plus the number of eighths of an inch of fadeout from the 40% to 70% transmittance point.

For example:

<table>
<thead>
<tr>
<th>Code</th>
<th>Color</th>
<th>% Transmittance</th>
<th>Fadeout</th>
</tr>
</thead>
<tbody>
<tr>
<td>1378000</td>
<td>137</td>
<td>80%</td>
<td>00</td>
</tr>
<tr>
<td>0100506</td>
<td>010</td>
<td>05%</td>
<td>06</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>19 mm (0+6/8 inches)</td>
</tr>
</tbody>
</table>
Maximum Width Information

Roll widths are variable from 23 cm (9 in.) to the following:

Clear: 321 cm (126 in.) maximum

Colors: 321 cm (126 in.) maximum
(greater width than 250 cm (100 in.) upon request)

Gradient tinted: Maximum total width = 168 cm (66 in.)

Maximum standard* bandwidth = 51 cm (20 in.) overall
Maximum clear width = 130 cm (51 in.)
Minimum band width = 7.5 cm (3 in.)
*Wider bandwidths, up to 66 cm (26 in.), are available by special request.

NOTE: Metric dimensions for gradient tinted are rounded to the mm, i.e. orders are placed and manufactured according to inch measurements.

Adhesion Types

Several adhesion types of Butacite® are available, tailored to the needs of each lamination process. Please contact your Kuraray Glass Laminating Solutions technical representative to select the right product.