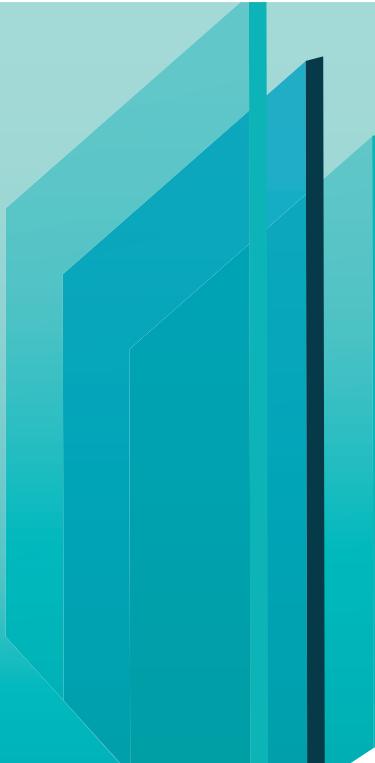


EVERLAM™ PVB INTERLAYER PRODUCT FACT SHEET



**EVERLAM™ POLYVINYL
BUTYRAL (PVB) interlayer**
is a brilliant solution for
making long-lasting, superior
laminated safety glass.

A highly adhesive, elastic, strong and durable plastic material, EVERLAM™ PVB interlayer exists as clear or colored, in different thicknesses. It is used by glass laminators worldwide to produce the attractive, high-quality and durable laminated safety glass required to meet stringent indoor and outdoor architectural application standards.



Safety

- Absorbs impact energy
- Resists penetration
- Maintains shattered glass fragments together



Security

- Resists burglar intrusion and violent attacks
- High performance configurations provide bullet and blast resistance



Sound protection

- Reduces sound transmission
- For use in noisy environments



UV protection

- Blocks UV transmittance
- Protects people and objects from potentially damaging rays

EVERLAM™ CLEARVIEW

| PRODUCT | PRODUCT CODE | COLOR CODE | LIGHT TRANSMISSION (%) | THICKNESS (MM) |
|-------------------|--------------|------------|------------------------|----------------|
| Standard clear | LAM51 | NC010 | >88 | 0.38 |
| | LAM52 | NC010 | >88 | 0.76 |
| | LAM53 | NC010 | >88 | 1.14 |
| | LAM54 | NC010 | >88 | 1.52 |
| Translucent White | LAM51 | 0216500 | 65 | 0.38 |
| | LAM52 | 0216500 | 65 | 0.76 |
| Satin White | LAM52 | 0217300 | 73 | 0.76 |
| Super Tough | LAM72 | NC010 | >88 | 0.76 |
| Standard Grey | LAM51 | 0654400 | 44 | 0.38 |
| | LAM52 | 0654400 | 44 | 0.76 |
| Grey* | LAM51 | 0655500 | 55 | 0.38 |
| Solar Grey* | LAM51 | 1654400 | 44 | 0.38 |
| Light Blue Green | LAM51 | 0377300 | 73 | 0.38 |
| | LAM52 | 0377300 | 73 | 0.76 |
| Bronze | LAM51 | 0645200 | 52 | 0.38 |
| | LAM52 | 0645200 | 52 | 0.76 |

*: under exclusivity

ROLL SIZES AND PACKAGING

| ROLL WIDTH | PVB THICKNESS | | ROLL LENGTH | |
|---|---------------|----------|----------------|-------------------|
| Increments from 60 to 321 cm / 23 in 5/8 to 126 in 3/16 | 0.38 mm | 15 gauge | 400 m | 1,312 ft |
| | 0.76 mm | 30 gauge | 200 m | 656 ft |
| | 1.14 mm | 45 gauge | 166 m | 545 ft |
| | 1.52 mm | 60 gauge | 125 m | 410 ft |
| 321 cm / 126 in 3/16 | 0.38 mm | 15 gauge | 500 or 1,000 m | 1,640 or 3,280 ft |
| | 0.76 mm | 30 gauge | 250 or 500 m | 800 or 1,640 ft |
| | 1.14 mm | 45 gauge | 355 m | 1,099 ft |
| | 1.52 mm | 60 gauge | 125 or 250 m | 410 or 820 ft |

The interlayer is wound on 152 mm / 6 in inner diameter cores. Rolls are packed and shipped as follows:

- Roll widths of 140 cm / 55 in or greater are packed and shipped in single-roll, horizontal crates.
- Smaller width rolls are normally shipped in 4-roll package, packed vertically on a pallet.

To prevent difficulty of unwinding rolls, EVERLAM™ PVB interlayer is supplied either:

- Refrigerated, i.e. maintained between 2°C / 35°F and 10°C / 50°F.
- Interleaved, i.e. separated with a thin PE film and stored between 4°C / 39°F and 30°C / 86°F.

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.

EVERLAM™ CLEARVIEW TYPICAL PROPERTIES

Physical properties

| GROUP | PROPERTY | TEST METHOD | UNITS | TEST CONDITIONS | TYPICAL VALUE |
|------------|-----------------------------------|-------------|---------|---|---------------|
| Physical | Specific gravity | ASTM D792 | - | 23 °C | 1.065 |
| | Moisture content | NIR | % | - | 0.45 |
| | Specific heat | ASTM E1269 | J/Kg°K | 50 °C | 2091 |
| Mechanical | Tensile strength | EN ISO 527 | MPa | 24 °C/30% RH | 22.3 |
| | Poisson's Ratio | ASTM D638 | - | 23 °C/50% RH | 0.48 |
| | Tear resistance | ASTM D1004 | N | Tested to failure on an Instron UTM using a 500 N load cell at a rate of 2.00 in/min. | 19.85 |
| | Elongation at break | EN ISO 527 | % | 24 °C/30% RH | 198 |
| Optical | Light transmission | EN410 | % | - | >88 |
| | UV transmission | ISO 9050 | % | - | <1.5 |
| | Haze | ASTM D1003 | % | - | < 0.4 |
| | Yellowness | ASTM 1925 | - | Normalized to 10 mm thickness | < 7.5 |
| Thermal | Glass transition temperature (Tg) | DMA | °C | 1 Hz at 3 °C/min Maximum phase angle | 30 ± 1 |
| | Thermal conductivity | ASTM D5930 | W/m°K | 30 °C | 0.2 |
| | Thermal expansion coefficient | ASTM E831 | 10-6/°C | 0-50 °C | 469 |
| | Self-ignition temperature | ASTM D1929 | °C | Specimen placed in vertical tube in a hot-air ignition furnace | 362 |
| | Emissivity | ASTM C1371 | - | 22 °C | 0.92 |

This information corresponds to our current knowledge on the subject. It is offered solely to provide possible suggestions for your own experiments. The values are typical values. It is not intended, however, to substitute for any testing you may need to conduct to determine for yourself the suitability of our products for your particular purposes. This information may be subject to revision as new knowledge and experience becomes available. Since we cannot anticipate all variations in actual end-use conditions, EVERLAM makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent right. Caution: do not use in medical applications involving permanent implantation in the human body.



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