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
BRILLIANTLY PROTECTED.

EVERLAM™ CLEAR

COLOR	COLOR CODE	PRODUCT CODE	THICKNESS		LIGHT TRANSMITTANCE
CLEAR	NC010	LAM51	0.38 mm	15 gauge	> 88%
		LAM52	0.76 mm	30 gauge	
		LAM53	1.14 mm	45 gauge	
		LAM54	1.52 mm	60 gauge	

EVERLAM™ COLORED

COLOR	COLOR CODE	PRODUCT CODE	THICKNESS		LIGHT TRANSMITTANCE
GREY	0654400	LAM51	0.38 mm	15 gauge	44%
		LAM52	0.76 mm	30 gauge	
SOLAR GREY	1654400	LAM51	0.38 mm	15 gauge	44%
		LAM52	0.76 mm	30 gauge	
LIGHT BLUE GREEN	0377300	LAM51	0.38 mm	15 gauge	73%
		LAM52	0.76 mm	30 gauge	
AZURE BLUE	0637600	LAM51	0.38 mm	15 gauge	76%
		LAM52	0.76 mm	30 gauge	
BRONZE	0645200	LAM51	0.38 mm	15 gauge	52%
		LAM52	0.76 mm	30 gauge	
MURANO GREEN	1378000	LAM51	0.38 mm	15 gauge	80%
		LAM52	0.76 mm	30 gauge	

EVERLAM™ WHITE

COLOR	COLOR CODE	PRODUCT CODE	THICKNESS		LIGHT TRANSMITTANCE
TRANSLUCENT WHITE	0216500	LAM51	0.38 mm	15 gauge	65%
		LAM52	0.76 mm	30 gauge	
SOFT WHITE	0218000	LAM51	0.38 mm	15 gauge	80%
		LAM52	0.76 mm	30 gauge	

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	820 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™ CLEAR TYPICAL PROPERTIES

Physical properties

PROPERTY	TEST METHOD	UNITS	TEST CONDITIONS	TYPICAL VALUE
Specific gravity	ASTM D792		23°C / 73°F	1.066
Specific heat (Cp)	ASTM E1269	Joules/kg*K	50°C / 122°F	1.973
Sheet moisture	N-IR	%		0.45

Mechanical properties

PROPERTY	TEST METHOD	UNITS	TEST CONDITIONS	TYPICAL VALUE
Tensile strength	EN ISO 527	MPa	23°C / 73°F (50% RH)	23
Elongation at break	EN ISO 527	%	23°C / 73°F (50% RH)	250

Optical properties

PROPERTY	TEST METHOD	UNITS	TEST CONDITIONS	TYPICAL VALUE
Refractive index	ASTM D542		23°C / 73°F	1.48
Optical transmission	EN 410	%		> 88 (NC010)
Yellowness	ASTM 1925		Normalized to 10 mm thickness	< 16.0
Haze	ASTM D1003	%		< 0.6
UV transmission	ISO 9050	%	Thickness 0.76 mm	< 2.0

Thermal properties

PROPERTY	TEST METHOD	UNITS	TEST CONDITIONS	TYPICAL VALUE
Coefficient of thermal expansion	TMA	m/m*°C	0-100°C / 32 - 212°F	4.12×10^{-4}
Melt Flow Rate	ISO 1133:2005	g/10 min	150°C / 5 kg 302°F / 11 lb	1.3

Electrical properties

PROPERTY	TEST METHOD	UNITS	TEST CONDITIONS	TYPICAL VALUE
Surface resistivity	ASTM D257	Ohms	23°C / 73°F (30% RH)	2×10^{13}

COMPLIANCE

EVERLAM™ PVB interlayer properties have been developed to meet the requirements set in the major standards and code systems worldwide.

CAS Number: 63148-65-2

COMMERCIAL AND INDUSTRIAL FACADES	EN 410	Light and solar heat transmittance/reflectance
	EN 12600	Impact safety film for glass
	ASTM C1172	Standard specification for laminated architectural flat glass
	ASTM E1300	Standard Practice for determining the minimum thickness and type of glass required to resist a specific load
	ASTM F1233	Standard test method for security glazing materials and systems
	UL 972	Burglar resistant glazing
	ANSI Z97.1	American national standard for safety glazing materials used in buildings
BALUSTRADES	BS 6180	Barriers in and around buildings
	EN 1991	Actions on structures
	EN 2608	Reliable glass constructions
OVERHEAD GLAZING	DibT norm on PVB interlayers	Regulations of tensile strength and elongation defined by the Deutsches Institut für Bau technik
FLOORS AND STAIRS	ASTM E1300	Standard Practice for determining the minimum thickness and type of glass required to resist a specific load
BURGLAR RESISTANCE	EN 1627	Windows, doors, shutters – Burglar Resistance – Requirements and classification
	EN 1630	Windows, doors, shutters – Burglar Resistance – Test method for the determination of resistance to manual burglary attempts
	EN 356	Glass in building, security glazing, testing and classification of resistance against manual attack
	UL 972	Burglar resistant glazing
BLAST AND EXPLOSION RESISTANCE	EN 13541	Testing and classification of resistance to explosion pressure
	EN 13123-1	Windows, doors, shutters – Explosion resistance – Requirements and classification – Part 1 – Shock tube
	EN 13124-1	Windows, doors, shutters – Explosion resistance – Test method – Part 1 – Shock tube
BULLET RESISTANCE	EN 1063	Glass in building, security glazing, bullet-resistant glazing, classification and test method
	UL 752	Bullet resistant equipment
RESIDENCE GLAZING	EN 356	Glass in building, security glazing, testing and classification of resistance against manual attack
	ASTM C 1172	Standard specification for laminated architectural flat glass
	ASTM F1233	Standard test method for security glazing materials and systems
	UL 972	Burglar resistant glazing
	ANSI Z97.1	American national standard for safety glazing materials used in buildings

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