

DuPont™ Butacite®

POLYVINYL BUTYRAL INTERLAYER

PRODUCT INFORMATION

DuPont Glass Laminating Solutions (GLS) serves the automotive and architecture markets. GLS has developed solutions for safety, security, sound reduction, solar protection... Our offering includes SentryGlas® Plus, SentryGlas® Expressions™, SentryGlas® Acoustic™, Butacite®, Spallshield®, the Wedge™ and SentryGlas® Bi-Lam.

For more information, please visit our website (<http://www.dupont.com/safetyglass/>) or contact one of our offices listed on the last page of this document.



General Information

DuPont™ Butacite® polyvinyl butyral sheeting is a pliable, tough thermoplastic used as an interlayer in laminated safety glass.

Automotive compositions:

Butacite® B551, B552 and B553 are formulated to give controlled adhesion to glass, and optimum impact performance in laminated, highly-penetration-resistant windshields.

Architectural compositions:

Butacite® B50 grades can be obtained in all standard architectural thicknesses up to 2.28 mm (90 mil). Its properties have been developed to meet the requirements set in the major code systems worldwide (ISO, CEN, ASTM, JIS etc.)

All Butacite® compositions are formulated to absorb about all naturally occurring ultraviolet radiation from sunlight. Glass laminates containing Butacite® polyvinyl butyral sheeting give long-term stability in outdoor service, and provide protection from the sun's rays.

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

- To prevent blocking of 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 filmBoth are available up to a width of 321 cm (126 in).
- Rolls are packaged in single boxes (horizontal) for widths above 165 cm (65 in). Smaller widths are normally packaged in four-roll cartons on a pallet. Two-roll packages are also available for 500m (1640') length rolls.
- Sheeting is wound on 152 mm (6 in) inside diameter cores
- The interlayer is protected from moisture changes during shipping and storage by a moisture-proof 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® may vary slightly according to actual roll length, width and caliper as these three measurements can be different per roll based on our published specifications 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 our product.



The miracles of science™

Butacite® – Automotive Compositions

Description

Glass Laminating Solutions has the following offering for windscreen products:

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

Note: Adhesion types are available for different processes.

Description	Color description	Color Code	Standard roll length ¹
Clear	Clear	NC 010	250m or 500m (820' or 1640')
Uniformly Solid Colors	Bronze - LT: 78%	0367800	250m or 500m (820' or 1640')
	Light Blue Green – LT 78%	0377800	250m or 500m (820' or 1640')
	Cobalt blue - LT: 78%	0547800	250m or 500m (820' or 1640')
	Charcoal Gray - LT: 18%	0741800	250m or 500m (820' or 1640')
	Moss Green - LT: 36%	0743600	250m or 500m (820' or 1640')
	Japanese Blue Green - LT: 78%	1107800	250m or 500m (820' or 1640')
	Murano Green -LT: 80%	1378000	250m or 500m (820' or 1640')
Gradient Tinted On Clear Colors	Blue band on Clear sheeting	0100506	250m or 500m (820' or 1640')
	Light Blue on Clear sheeting	0103522	250m or 500m (820' or 1640')
	Green band (25%) on Clear sheeting	0312512	250m or 500m (820' or 1640')
	Green band (30%) on Clear sheeting	0313016	250m or 500m (820' or 1640')
	Gray on Clear sheeting	8003510	250m or 500m (820' or 1640')
	Blue on Clear sheeting	8100506	250m or 500m (820' or 1640')
	Green on Clear sheeting	8312512	250m or 500m (820' or 1640')
Gradient Tinted On Solid Colors	Blue band on Bronze sheeting	0360506	250m or 500m (820' or 1640')
	Green band on Bronze sheeting	0362512	250m or 500m (820' or 1640')
	Blue band on Cobalt Blue sheeting	0540506	250m or 500m (820' or 1640')
	Blue band on Green Blue sheeting	1100506	250m or 500m (820' or 1640')
	Green band on Green Blue sheeting	1102512	250m or 500m (820' or 1640')
	Blue band on Murano Green sheeting	1370506	250m or 500m (820' or 1640')
	Green band on Murano Green sheeting	1372512	250m or 500m (820' or 1640')

(All automotive compositions are 0.76 mm (30 mil) caliper)

¹ Packaging: 250 m (820 feet) rolls = 4 rolls case
500 m (1640 feet) rolls = 2 rolls case

Uniformly colored and gradient tinted Butacite® color code numbers

The first three digits of the seven-digit 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:			
Code	Color	% Transmittance	Fadeout
1378000	137 Green	80%	00 no shade band
0100506	010 Blue band	05%	06 19 mm (0+6/8 inches) fadeout

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)
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.

Butacite® – Architectural Compositions

Description

Description	Product code	Color code	Thickness, mm (mil)	Standard roll length, m (ft)
Clear	B51	NC 010	0.38 (15)	Narrow ¹ : 400 (1312) Wide ¹ : 400 and 1000 (1312 and 3280)
	B52	NC 010	0.76 (30)	Narrow ¹ : 200 (656 and 1640) Wide ¹ : 200 and 500 (656, and 1640)
	B53	NC 010	1.14 (45)	Narrow ¹ : 130 (427) Wide ¹ : 130 and 330 ² (427 and 1082)
	B54	NC 010	1.52 (60)	Narrow ¹ : 100 (328) Wide ¹ : 100 and 250 (328 and 820)
	B56	NC 010	2.28 (90)	Narrow ¹ : 83 (273)
Uniformly colored				
Azure blue - LT: 76%	B51	0637600	0.38 (15)	400 (1312)
	B52		0.76 (30)	200 (656)
Bronze - LT: 52%	B51	0645200	0.38 (15)	400 (1312)
	B52		0.76 (30)	200 (656)
Dark Blue – LT 50%	B51	0635000	0.38 (15)	400 (1312)
Gray - LT: 44%	B51	0654400	0.38 (15)	400 (1312)
	B52		0.76 (30)	200 (656)
Light blue-green LT: 73%	B51	0377300	0.38 (15)	400 (1312)
	B52		0.76 (30)	200 (656)
Soft White - LT: 80%	B51	0218000	0.38 (15)	400 (1312)
	B52		0.76 (30)	200 (656)
Translucent White - LT: 65%	B51	0216500	0.38 (15)	400 (1312)
	B52		0.76 (30)	200 (656)

Notes:
¹ Refers to the sheeting width:
 "Wide" width = 321cm
 "Narrow" width < 321cm

Adhesion information

Several adhesion types are available tailored for the needs of each lamination process. Please contact your technical representative to select the right product.

Packaging : For rolls up to 165 cm (65 in) wide (4 rolls vertically packed on 1 pallet)
 For rolls wider than 165 cm (65 in) (single rolls, horizontally packed)

Width information

- All products listed above except products with a thickness of 2.28 mm (90 mil) can be produced in width ranging from 23 to 321 cm (9 to 126 inch). Availability will depend on order size.
- 2.28 mm (90 mil) thick Butacite® PVB is available in width up to 254 cm (100 in)
- Please consult your sales representative for information about availability and minimum order size.

DuPont Glass Laminating Solutions supplies and supports customers from research, manufacturing and sales locations worldwide.

DuPont Offices Worldwide

Americas

DuPont Company, BMP26-2363
Lancaster Pike & Route 141
Wilmington, DE 19805 U.S.A.
Telephone +1 302 774 1161
Toll-free (USA) 800 635 3182
Fax +1 302 892 7639

Asia Pacific

DuPont (Korea) Inc
3-5th Floor, Asia Tower #726
Yeoksam-dong, Kangnam-ku
Seoul 135-082, Korea
Telephone +82 2 2222 5422
Fax +82 2 2222 5482

Europe / Middle East / Africa

DuPont de Nemours Int'l. S.A.
2, Chemin du Pavillon Box 50
CH-1218 Le Grand Saconnex
Geneva, Switzerland
Telephone +41 22 717 51 11
Fax +41 22 717 55 00

<http://www.dupont.com/safetyglass>

Copyright © 2006 DuPont. All rights reserved. Disclaimer: The technical data contained herein are guides to the use of DuPont materials. The advice contained herein is based upon tests and information believed to be reliable, but user should not rely upon it absolutely for specific applications because performance properties will vary with processing conditions. It is given and accepted at user's risk and confirmation of its validity and suitability in particular cases should be obtained independently. The DuPont Company makes no guarantees of results and assumes no obligations or liability in connection with its advice.

This publication is not to be taken as a license to operate under, or recommendation to infringe any patents. CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see DuPont Medical Caution Statement, H-50102.

The DuPont Oval, DuPont™, The miracles of science™, and Butacite® are trademarks or registered trademarks of DuPont or its affiliates. Doc. Ref. L-45245_rev.3 (08/2006)



The miracles of science™