



The Institute for Advanced Learning and Research
Location: Danville, VA
Products: Solexia™ Glass
Architect: PSA – Dewberry
Glazing Contractor: Piedmont Glass
Glass Fabricator: ACI Distribution
Owner/Developer: Virginia Tech LALR

Aesthetic Description

Solexia™ Glass (formerly **Solex®**) is a soothing, light-green glass that is part of the **Oceans of Color®** collection by PPG. Introduced in 1952, **Solex** glass introduced the concept of spectrally selective* glasses to the architectural community and launched an unparalleled heritage of energy-saving performance and exceptionally attractive looks. With its new identity, **Solexia** glass will remain an industry standard for spectrally selective performance — a role it has played for more than a half-century.

Performance Options

See other side for a complete performance table, including two second-surface low-e coating options.

Solexia™ Glass (6mm Monolithic)

- Exceptional Visible Light Transmittance (VLT): 77%
- Good Solar Heat Gain Coefficient (SHGC): 0.60
- Excellent Light to Solar Gain (LSG) ratio: 1.28

Solexia™ Glass (1" I.G. Unit, 6mm)

- Exceptional Visible Light Transmittance (VLT) for any tinted glass insulating unit: 69%

- Good Solar Heat Gain Coefficient (SHGC): 0.49
- Excellent Light to Solar Gain (LSG) ratio: 1.41

Solexia™ and Sungate® 500 (3) Low-E Glass (1" I.G. Unit, 6mm)

Combining **Solexia** with **Sungate** 500 Low-E Glass delivers premium performance at a highly competitive cost.

- Outstanding Visible Light Transmittance (VLT): 64%
- Good Solar Heat Gain Coefficient (SHGC): 0.44
- Excellent Light to Solar Gain (LSG) ratio: 1.45

Solexia™ and Solarban® 60 (3) Solar Control Low-E Glass (1" I.G. Unit, 6mm)

Combining these two products provides outstanding overall energy performance.

- Outstanding Visible Light Transmittance (VLT): 61%
- Good Solar Heat Gain Coefficient (SHGC): 0.36
- Exceptional Light to Solar Gain (LSG) ratio: 1.70

Solexia™ and Solarban® 70XL (3) Solar Control Low-E Glass (1" I.G. Unit, 6mm)

- Excellent Visible Light Transmittance (VLT): 56%
- Good Solar Heat Gain Coefficient (SHGC): 0.32
- Exceptional Light to Solar Gain (LSG) ratio: 1.74

* The U.S. Department of Energy defines spectrally selective as glass with a Light to Solar Gain (LSG) ratio of 1.25 or higher.

OCEANS OF COLOR®
Ocean-Inspired Tinted Glass from PPG

Solexia™
Glass

(formerly **Solex®**)

Atlantica™
Glass

(formerly **Solargreen®**)

Caribia®
Glass

Azuria™
Glass

(formerly **Azurlite®**)

NEW!
Pacifica™
Glass

Solexia™ and Solarban® z50 (3) Solar Control Low-E Glass (1" I.G. Unit, 6mm)

- Good Visible Light Transmittance (VLT): 44%
- Good Solar Heat Gain Coefficient (SHGC): 0.35
- Excellent Light to Solar Gain (LSG) ratio: 1.26

Fabrication and Availability

Solexia glass provides maximum processing flexibility and can be easily laminated, tempered or heat-strengthened to satisfy increased strength or safety glazing requirements.

Solexia glass with second-surface **Solarban 70XL** and **Solarban 60** coatings is available exclusively through the PPG Certified Fabricator Network. **Solexia** glass is also readily available without second-surface **Solarban** coatings from nearly 100 glass fabrication locations throughout the U.S. and Canada, and international representatives in 25 countries.

Additional Resources

EcoLogical Building Solutions

from PPG encompass a number of environmentally sustainable architectural glass products, including **Solexia** glass with **Vistacool™**, **Solarban** and **Sungate** coatings. For more information or to obtain samples of any PPG glass product, call 1-888-PPG-IDEA (774-4332), or visit www.ppgideascape.com. All PPG architectural glass is Cradle to Cradle Certified.™



PPG IdeaScapes.™ Integrated products, people and services to inspire your design and color vision.

Solexia™ Glass (formerly Solerx®) Performance — Commercial Insulating Glass Unit and Monolithic Comparisons Using 1/4" (6mm) Glass

Glass Type	Transmittance			Reflectance		U-Value (Imperial)		European U-Value	Shading Coefficient	Solar Heat Gain Coefficient	Light to Solar Gain (LSG)
	Ultra-violet %	Visible %	Total Solar Energy %	Visible Light %	Total Solar Energy %	Winter Night-time	Summer Day-time				
Insulating Vision Unit Performance Comparisons 1-inch (25mm) units with 1/2-inch (13mm) airspace and two 1/4-inch (6mm) lites; interior lite clear											
SOLEXIA™ Glass											
SOLEXIA + Clear	25	69	39	13	8	0.47	0.50	2.81	0.57	0.49	1.41
SOLARBAN 70XL (2) SOLEXIA + Clear*	3	54	19	10	12	0.28	0.26	1.50	0.29	0.25	2.18
SOLARBAN 60 (2) SOLEXIA + Clear	10	61	25	10	11	0.29	0.27	1.55	0.36	0.32	1.92
SOLEXIA + SOLARBAN 70XL (3)*	3	56	20	11	13	0.28	0.26	1.50	0.37	0.32	1.74
SOLEXIA + SOLARBAN 60 (3) Clear	10	61	25	11	11	0.29	0.27	1.55	0.42	0.36	1.70
SOLEXIA + SOLARBAN z50 (3) OPTIBLUE	8	44	19	10	11	0.29	0.27	1.55	0.41	0.35	1.26
SOLEXIA + SUNGATE 500 (3) Clear	21	64	33	14	9	0.35	0.35	1.96	0.51	0.44	1.45
SOLARCOOL® (Reflective) with SOLEXIA Glass											
SOLARCOOL (2) SOLEXIA + Clear	7	27	19	24	12	0.48	0.50	2.82	0.36	0.31	0.87
SOLARCOOL (2) SOLEXIA + SOLARBAN 70XL (3)*	1	22	8	24	16	0.28	0.26	1.50	0.20	0.17	1.28
SOLARCOOL (2) SOLEXIA + SOLARBAN 60 (3) Clear	3	24	10	24	15	0.29	0.27	1.55	0.22	0.19	1.26
SOLARCOOL (2) SOLEXIA + SUNGATE 500 (3) Clear	6	25	15	24	13	0.35	0.35	1.96	0.31	0.26	0.98

* **Solarban 70XL** for annealed applications is applied to **Starphire** glass; heat treated applications will require either clear or **Starphire** glass depending on manufacturing process.

All performance data calculated using LBNL Window 5.2 software, except European U-Value, which is calculated using WinDat version 3.0.1 software. For detailed information on the methodologies used to calculate the aesthetic and performance values in this table, please visit www.ppgideascape.com or request our Architectural Glass Catalog.

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