



*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](http://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 Solex®) 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				
<b>Insulating Vision Unit Performance Comparisons</b> 1-inch (25mm) units with 1/2-inch (13mm) airspace and two 1/4-inch (6mm) lites; interior lite clear											
<b>SOLEXIA™ Glass</b>											
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
<b>SOLARCOOL® (Reflective) with SOLEXIA Glass</b>											
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](http://www.ppgideascape.com) or request our Architectural Glass Catalog.

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