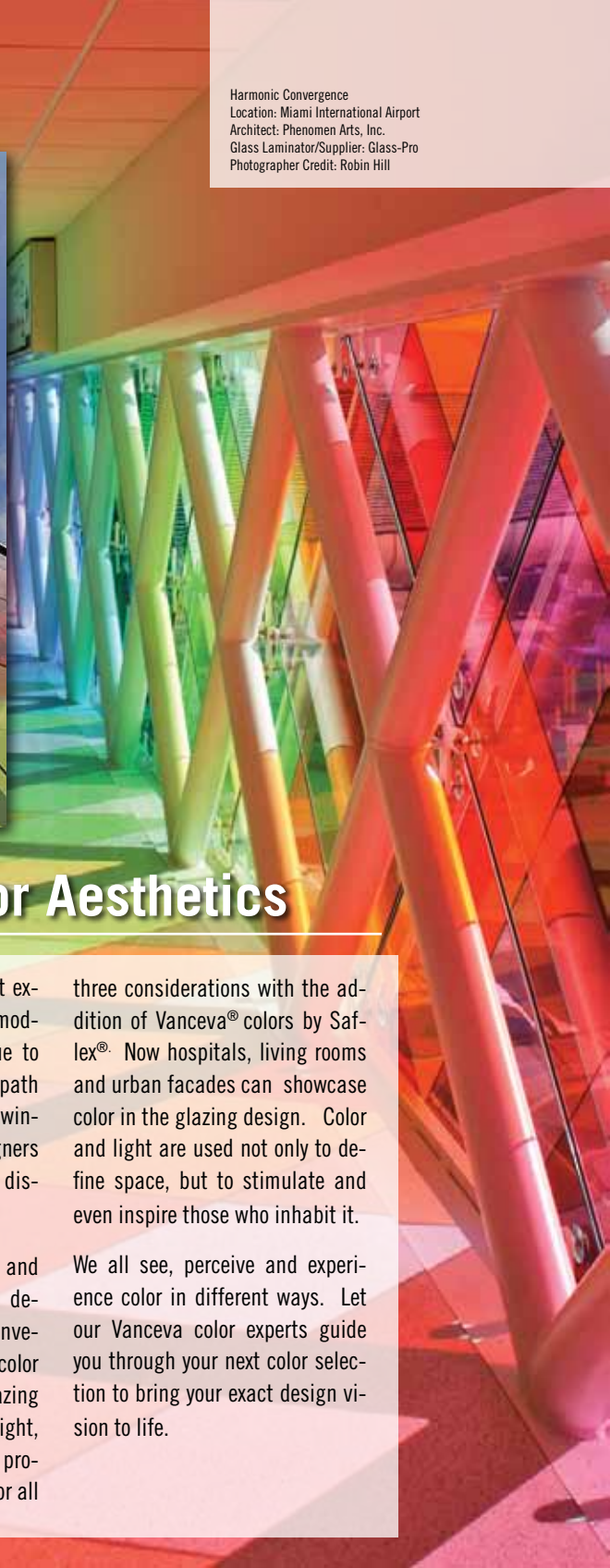


EASTMAN

Rethink Color

Advanced Color Glazing Technology

vanceva[®]
COLOR BY SAFLEX



For more than 80 years, Saflex® has been the world's leading brand of protective interlayer for laminated glass — extending the frontiers of color glazing for architects and designers who dare to dream in color.

In fact, no other interlayer brand delivers the complete spectrum of colors for laminated glass like Vanceva color interlayers by Saflex.

Designing for Aesthetics

Without light -- color would not exist. Therefore it is perfect that modern day design trends continue to bring color into glass. Often a path for natural day lighting, today's windows offer architects and designers a dynamic palette on which to display color.

No longer reserved for paint and wall coverings, architects and designers continue to push the envelope, developing innovative color design methods for every glazing application. When exploring light, form and space in the design process, glass can be the answer for all

three considerations with the addition of Vanceva® colors by Saflex®. Now hospitals, living rooms and urban facades can showcase color in the glazing design. Color and light are used not only to define space, but to stimulate and even inspire those who inhabit it.

We all see, perceive and experience color in different ways. Let our Vanceva color experts guide you through your next color selection to bring your exact design vision to life.





Dream in Color

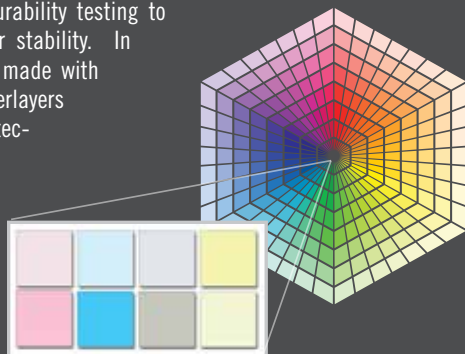
Thousands of Color Possibilities

Producing a broad spectrum of colors and moods that are unachievable using stock selections of glass, Vanceva® color by Saflex gives architects and designers more creative freedom with glass than ever before. Vanceva color interlayers can be combined to produce more than two thousand transparent, translucent or opaque color options to help create the desired tone and intensity. When Vanceva color interlayers are combined with tinted or reflective glass, the design possibilities are nearly limitless. No other interlayer brand delivers the complete spectrum of colors for laminated glass like Vanceva colors by Saflex. Used in curtain walls, atriums, skylights, partitions and conference rooms, Vanceva color interlayers allow the most expressive designs with distinctive hues from the subtle to the dramatic.



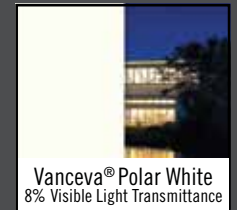
Color Technology

All Vanceva color interlayers are made with heat- and light-stable pigments instead of dyes to resist fading and have undergone vigorous durability testing to ensure long-term color stability. In fact, laminated glass made with Vanceva color interlayers deliver effective protection from harmful UV radiation, reduces solar energy transmittance and heat build up. The interlayers screen out up to 99% of damaging UV radiation up to 380 nm to help retard color fading and the deterioration of fabrics and furnishings. To determine the best Vanceva color configuration for your project, both spectrophotometer and visual color matching are used.



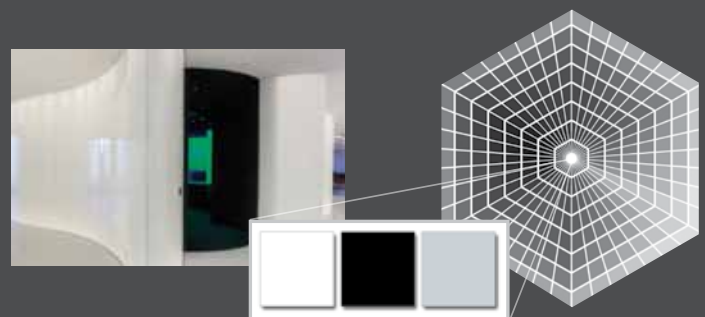
Translucency & Opacity

In both interior and exterior applications, Vanceva white interlayers complete the most dramatic designs allowing for total opacity for private settings or translucent designs to let the light shine in -- plus greater flexibility between the extremes.



Today, white is more than just a blank slate on which to showcase color. White can complete a design giving it meaning, balance and strength. While color influences how people interact in a space, more importantly, it impacts mood, behavior and productivity. You can trust that Vanceva color interlayers will provide superior, uniformed color, which results in a unique, even reversible, white safety glass. It's one of the many reasons why architects and designers trust Saflex to deliver the "right white in every light."

Vanceva Absolute Black interlayer is another option for opaque glazing applications. The interlayer has superior uniform color and is perfect for two sided glass color or spandrel applications. Vanceva Ocean Grey, a true blue based grey, can neutralize the color effect of low-e coatings in a laminated glazing configuration. The color can also be layered with itself to create a gradient effect of greys from light to dark, creating a dynamic effect.



Additional Benefits of Laminated Glass

In addition to the proven color technology, all Vanceva colors deliver all of the traditional benefits inherent in laminated glass:

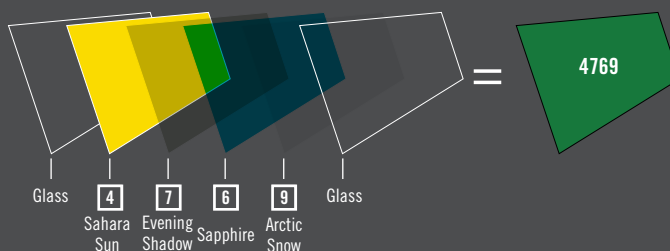
- **Safety:** Protecting building occupants and pedestrians from accidental glass impact, breakage, or fallout.
- **Security:** Providing burglary and forced-entry resistance, ballistic (bullet) protection and bomb blast resistance.
- **Acoustic:** Reducing the transmission of unwanted sound into a building's environment.
- **Solar:** Filtering more than 99 percent of UV rays, controlling visible light radiation & reducing heat build-up & thermal stress.
- **Storm/Hurricane:** Delivering a wide range of transparent to translucent hurricane protection glazing solutions.



How to Specify Vanceva® Colors

How the System Works

The Vanceva color system is based on a foundational palette of 4 key colors (pink, blue, grey and yellow) in two light transmissions to create a base palette of 8 colors. Similar to the CMYK color system most often used in printing, the Vanceva color system allows Architects, Designers and Glass Fabricators the ability to layer several different color interlayers together, in different intensity levels, to create thousands of color possibilities.



Vanceva Color Formulation Codes

One to four sheets of Vanceva color interlayer is typically used to construct custom colored laminated glass. Since the maximum number of interlayers is four, each Vanceva color has been assigned a four-digit number. Each number or letter represents a layer from the foundational palette used to create all Vanceva color interlayer combinations. The illustration on this page details an example of a four layer Vanceva color code, and each corresponding color associated with the final glass make up. An example of a one layer combination would be Vanceva 0006, while an example of a two layer color combination would be Vanceva 0026, etc.

Foundation Colors

The foundation palette consists of 8 basic colors available in two light transmission levels of pink, blue and grey. These interlayer colors can be layered in various combinations to produce more than 1,000 transparent color options.



Translucent Colors

If a project requires a frosted look for design or privacy reasons, a translucent color can be created by adding one of the white interlayers to the color mix.



Opaque Colors

Vanceva® Interlayer Polar White (color F) and Absolute Black (color G) are opaque colors that can be combined with any other color selection to make that color opaque, while at the same time creating completely different looks on each side of the glass.



Specialty Colors

Very concentrated colored pigments in a single interlayer are now enough to add brilliant hues to laminated glass.



Create your own unique colors and order samples at: www.vanceva.com



Vanceva® Insulation & Optical Properties



Name of Project: INTERNATIONAL MANAGEMENT INSTITUTE
 Location: Kolkata, India
 Architect(s)/Firm(s): ABIN DESIGN STUDIO PRINCIPAL
 DESIGNER: ABIN CHAUDHURI
 Glass Laminator/Supplier: THAI-GERMAN SPECIALTY GLASS
 CO. LTD, BANGKOK, THAILAND
 Photographer Credit: PRADIP SEN

Description	Layer Code	Visible Light Transmittance %	Visible Light Reflection %	Solar Transmittance %	Solar Energy Absorption %	Solar Heat Gain Coefficient (SHGC)
Colored Protective Interlayers						
Vanceva® Absolute Black	000G	0%	5%	0%	94%	0.3
Vanceva® Aquamarine	0002	77%	7%	69%	25%	0.76
Vanceva® Arctic Snow	0009	68%	16%	60%	28%	0.68
Vanceva® Cool White	000A	81%	14%	67%	22%	0.73
Vanceva® Coral Rose	0001	76%	7%	70%	23%	0.77
Vanceva® Deep Red	000C	15%	4%	38%	51%	0.54
Vanceva® Evening Shadow	0007	49%	5%	48%	47%	0.62
Vanceva® Golden Light	0008	85%	8%	69%	25%	0.76
Vanceva® Ocean Grey	000H	61%	9%	59%	33%	0.69
Vanceva® Polar White	000F	7%	4%	8%	40%	0.22
Vanceva® Ruby Red	0005	48%	6%	62%	31%	0.72
Vanceva® Sahara Sun	0004	78%	8%	63%	30%	0.72
Vanceva® Sapphire	0006	52%	6%	55%	38%	0.67
Vanceva® Smoke Grey	0003	78%	7%	67%	27%	0.75
Vanceva® Tangerine	000E	41%	8%	54%	39%	0.65
Vanceva® True Blue	000D	12%	6%	42%	56%	0.57

Information provided by Eastman Inc. The data and information set forth above are based on calculations and are not guaranteed for all samples or applications. All data calculated using Lawrence Berkeley Laboratory Window 5.2 Product; NFRC/ASHRAE Conditions; center of Glass Values; US Standard units. Laminates constructed as: 3 mm (0.125 inch) Clear glass - [Saflex Interlayer] - 3 mm (0.125 inch) Clear glass. Colored laminate configurations consist of 0.38 mm Saflex interlayer unless noted. All alternate interlayer thicknesses as designated.

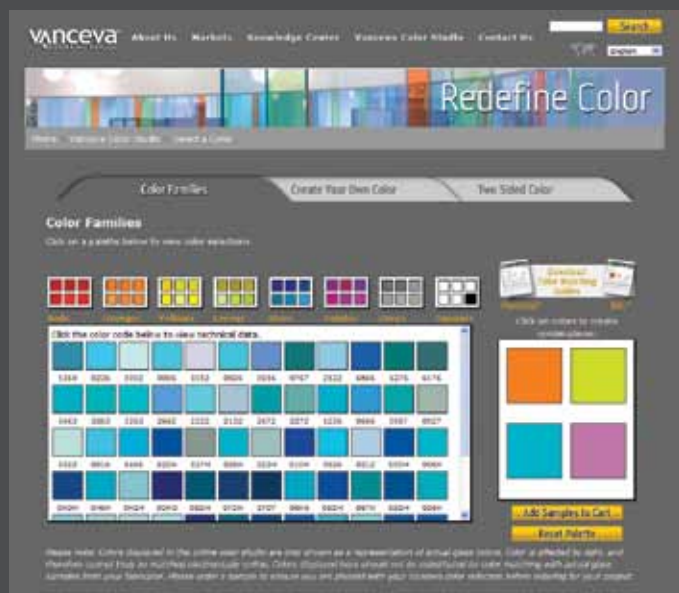
* Estimated data for Polar White.



Vanceva® Color Studio

Create Your Next Glass Design Online

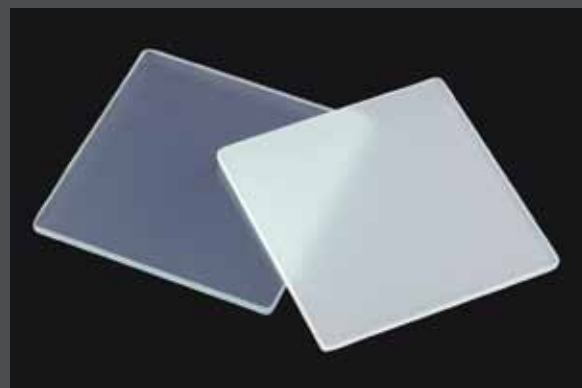
At the online Vanceva color studio, architects and designers can explore the unlimited color combinations available using the Vanceva color system. Within the virtual studio, you can create and view stunning color possibilities from a vast range of colors. Then, order samples of your color creations online to perform lighting tests, share with customers and compare for compatibility with other project materials.



Visit the Vanceva® Shop

Tools to help you in your color selection that can be ordered here: www.vanceva.com

- **Color Selector:** will allow you to create any Vanceva interlayer color combination right at your desk
- **Vanceva Samples Extended Set:** includes our 9 original Vanceva colors, our specialty colors as well as our Whites & Absolute Black to see a closer representation of your finished glass color
- **Single 10x10cm Vanceva Color Sample**
- **Color Forecast:** includes 10 new colors trends.
- Find our **preferred partners** in your region at www.vanceva.com



Access the Vanceva color studio at www.vanceva.com to:

- Order samples shipped directly to you
- Verify the actual sample color before specifying for your project
- Access technical data for color selections
- Match your Pantone or RAL colors to the equivalent Vanceva color combination
- Browse The Vanceva Dream Book: a collection of color projects using Vanceva color interlayers by Saflex

To learn more about Vanceva color product offerings, please contact the Saflex Architectural Glazing Solutions Centre via e-mail info@saflex.com. To order samples or to receive technical assistance, please visit www.vanceva.com.

Photo credits page 2: (Left to right)

Image 1: Centro Comercial Vivaci Guarda • Location: Guarda - Portugal • Architect: Paulo Perloiro - Promontório Architects • Glass Laminator: VICER - Vidraria Central de Ermesinde, Lda. • Photographer Credit: Tiago Santos Image 2: Mexico City Fire Department • Location: Mexico City, Mexico • Architects: Francisco Pardo & Julio Amezcua • Glass Fabricator: Cristacurva • Photo: Cristacurva Image 3: Byscenen • Location: Trondheim, Norway • Architects: Studio 4 Arkitekter AS • Glass Fabricator: Modum Glassindustri AS • Photo: Mr. Tor Steinar Johansen Image 4: Ruengrit Hairdressing Academy • Location: Central ChaengWatthana, Bangkok, Thailand. • Architect: Ruengrit Hairdressing Academy • Glass Laminator: Thai Techno Glass Company (Brand : BSG) • Photographer Credit: Thai Techno



Project Gallery



Harbor Mall, Lampchabang, Chonburi, Thailand

Architect: Pitupong Chaowakul, Thisdesign Co., Ltd.

Glass Laminator/Supplier: Thai Techno Glass Company (Brand: BSG)



Kvadrat HQ, Shepherdess Walk Hackney, London

Architect: David Adjaye

Engineering: Malishev Wilson Engineers

Glass Laminator/Supplier: Barretts Group



Papa, Gatineau, Quebec

Architect: Hal Ingberg

Glass Laminator/Supplier: Prelco, Vitreco (Glazier)



The Spa at Mandarin Oriental Hotel, Barcelona, Spain

Architect: Patricia Urquiola

Glass Laminator/Supplier: Control Glass (Union Vidriera Grupo)

Glass Installation: Cristaleria Juventud

Architects and Designers Trust Saflex®

Around the world, architects and designers trust Saflex when performance and safety are their most critical concerns. The reason for their confidence is simple: no matter what the specifications or performance targets, Saflex interlayer technology delivers advanced glazing performance for demanding applications.

www.vanceva.com

Contact Us

info@vanceva.com

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