



Clear float glass

Pilkington **OptiView™** Protect

Anti-reflective glass
Pilkington **OptiView™**
Pilkington **OptiView™** Protect



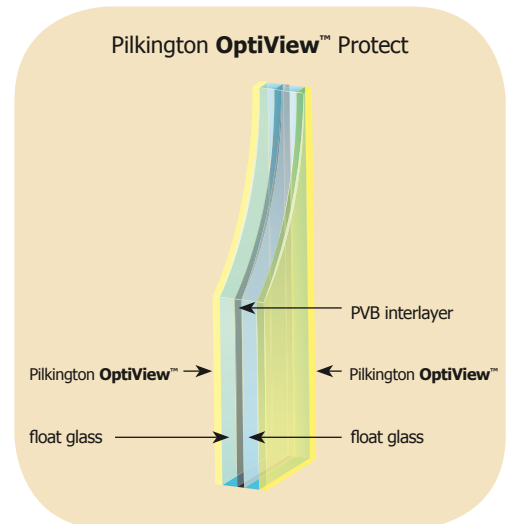
Pilkington **OptiView™** and Pilkington **OptiView™** Protect Color neutral, anti-reflective glass

Pilkington **OptiView™** is a color neutral, anti-reflective, pyrolytic coated product. It can be used in a monolithic or laminated application.

Pilkington **OptiView™** is a monolithic glass, with the anti-reflective coating on one surface, which reduces visible light reflectance and allows more visible light to pass through, when compared to clear float glass with 8% light reflectance as standard. The product can be used in a monolithic application.

Pilkington **OptiView™** Protect is a laminated glass with anti-reflective coatings on surfaces #1 and #4 (both outer surfaces of the laminated glass), which reduces interior and exterior visible light reflectance to under 2%. As a consequence, views from both inside and outside are clear, unobscured and virtually reflection-free.

Pilkington **OptiView™** Protect offers all the traditional benefits of laminated glass, such as improved safety, enhanced security, durability and acoustic properties. It also offers design flexibility, easy installation and low visual distortion. Furthermore, it provides protection from UV radiation (UVA and UVB) by blocking nearly 99% of UV transmittance, helping to reduce fading of the contents and interiors of a building.



Available glass thicknesses

- 3 mm, 4 mm, 6 mm single glass
- 6,8 mm laminated glass
- 8,8 mm laminated glass
- 12,8 mm laminated glass

Available stock sizes

- 6000 mm × 3210 mm
- 2550 mm × 3210 mm

Shanghai Museum, China



Applications

With its large size capability and ability to be processed like ordinary glass, Pilkington **OptiView™** Protect is ideal for a wide range of traditional and new anti-reflective applications in which clarity of view is of paramount importance.

- Display cases
- Retail shop fronts
- Showrooms
- Glass atriums
- Sports stadiums
- Cabinets
- Pictures
- Refrigerators
- Vehicles
- Zoos

Adding to its unique properties, it is available in larger sizes and achieves a more neutral color than most of the other anti-reflective glasses, providing architects with greater freedom to innovate than before.

Benefits

Safety

Pilkington **OptiView™** Protect is a laminated safety glass that performs under impact. Ordinary glass shatters into large pieces when impacted, while the laminated panes of Pilkington **OptiView™** Protect resist penetration and are shatter-resistant. Even though the glass may break, the glass fragments will remain firmly bonded to the interlayer, minimizing the risk of injury.

Security

Pilkington **OptiView™** Protect can help protect against break-ins and theft. Standard glass can be easily broken, allowing burglars easy access. The interlayers provide a safeguard against intrusion by remaining intact even when glass is broken.

Pilkington **OptiView™** Protect can be bulletproof and even protect against bomb blasts by using certain glazing combinations.



Copini Opticiens, Sneek, The Netherlands

Pilkington **OptiView™** Protect can be used in place of metal bars in applications such as banks, prisons and convenient stores requiring high security.

Audio performance

Pilkington **OptiView™** Protect provides an excellent barrier to noise. The laminated panes provide insulation against audio disturbances by dampening the sound.

J. Foster Jewelers, Ohio, USA





UV Control

Its anti-reflective properties allow it to absorb UV wavelengths and reduce damage and fading caused by UV radiation.

Durability

Pilkington **OptiView™** and Pilkington **OptiView™** Protect products are durable and maintain their strength and are easy to clean like ordinary glass.

Beijing Museum, China



Flagstar Bank, Michigan, USA



Beijing Museum, China

Design flexibility

Pilkington **OptiView™** can be bent, toughened, heat-strengthened, painted for spandrel and a ceramic frit can be applied.

Custom designs, images, logos, text, patterns or tinted interlayers can be laminated into the panes to create a truly personalized application. The design can be easily cleaned and free of fingerprints and other abrasions.

Easy installation

Pilkington **OptiView™** and Pilkington **OptiView™** Protect products are easy to install. Most laminated combinations can be easily cut to size and fabricated.

No visual distortion

Distortion can occur with heat-strengthened and toughened glass, known as roller wave distortion. Pilkington **OptiView™** and Pilkington **OptiView™** Protect products provide a clear view, free of distortion.

Features

- Exterior and interior light reflection reduced to less than 2%;
- Light transmittance greater than 90%;
- High clarity;
- UV transmittance reduced by over 99%;
- Superior safety, security and acoustic performance;
- Highly durable, on-line pyrolytic coating;
- Large size capability.

Zoo, Köln, Germany





President's House, Philadelphia,
Pennsylvania, USA



Pilkington **OptiView™** – performance data

Configuration	Light (%)				Energy (%)				T _{UV} (%)	Performance
	Transmittance	Reflectance outside	Reflectance inside	Colour rendering index	Direct transmittance	Reflectance	Absorptance	Total solar heat transmittance	UV transmittance	U _g [W/m ² K]
Pilkington OptiView™ Protect 6,8	91	2	2	99	69	3	28	74	<2	4,4
Pilkington OptiView™ Protect 8,8	89	2	2	98	68	4	28	73	<2	4,4
Pilkington OptiView™ Protect 12,8	88	2	2	97	61	3	36	68	<2	4,3
3 mm Pilkington OptiView™	91	6	6	99	82	6	12	85	63	5,8
4 mm Pilkington OptiView™	91	6	6	99	80	6	14	83	60	5,8
6 mm Pilkington OptiView™	91	6	6	99	81	6	13	84	61	5,7

The above performance data has been determined in accordance with EN 410 and EN 673.

Thickness of laminated single glass = thickness of glass layer + thickness of pvb + thickness of glass layer

- 6,8 mm Pilkington **OptiView™** Protect = 3 mm Pilkington **OptiView™** (#1) + 0,76 mm clear PVB layer + 3 mm Pilkington **OptiView™** (#4)
- 8,8 mm Pilkington **OptiView™** Protect = 4 mm Pilkington **OptiView™** (#1) + 0,76 mm clear PVB layer + 4 mm Pilkington **OptiView™** (#4)
- 12,8 mm Pilkington **OptiView™** Protect = 6 mm Pilkington **OptiView™** (#1) + 0,76 mm clear PVB layer + 6 mm Pilkington **OptiView™** (#4)



This publication provides only a general description of the products. Further, more detailed, information may be obtained from your local supplier of Pilkington products. It is the responsibility of the user to ensure that the use of these products is appropriate for any particular application and that such use complies with all relevant legislation, standards, codes of practice and other requirements. To the fullest extent permitted by applicable laws, Nippon Sheet Glass Co. Ltd. and its subsidiary companies disclaim all liability for any error in or omission from this publication and for all consequences of relying on it. Pilkington and "OptiView" are trademarks owned by Nippon Sheet Glass Co. Ltd, or a subsidiary thereof.



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