

Pilkington **Activ**™ Self-Cleaning Glass

The world's first solar-powered self-cleaning glass. For clean windows . . . naturally.



PILKINGTON

First in Glass



Pilkington Activ™ Self-Cleaning Glass

A better way to keep windows clean.



The hydrophilic action of Pilkington Activ™ Self-Cleaning Glass (left) causes water to sheet rather than spot, as it does on ordinary glass (right).



Using UV energy, the surface of Pilkington Activ™ Self-Cleaning Glass (upper) gradually breaks down and loosens dirt, and causes rain to sheet on the glass (lower), leaving a clean exterior with minimal spotting or streaking.¹



First in Glass

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Activ^M Self-Cleaning Glass, Activ SP^M Glass, the Activ^M Sun, The Dirt Destroyer^M, Energy Advantage^M Low-E Glass and Solar E^M Glass are trademarks of Pilkington.

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Now there's a revolutionary new kind of glass that actually uses the power of the sun to clean itself.

Pilkington **Activ**TM Self-Cleaning Glass uses ordinary

Pilkington **Activ™** Self-Cleaning Glass uses ordinary daylight – which is abundant even on cloudy days – to keep windows clean with a two-step process:

- A PhotoActiv™ surface actively attacks dirt to actually loosen and break down dirt and other organic matter, and then
- when it rains, the water sheets off the ActivTM surface, so windows dry without spots and streaks.

So under most conditions, natural rain is sufficient to keep your windows clean. And in dry weather, a quick spray with the hose will achieve the same results.

The secret is Pilkington's advanced pyrolytic technology which uses an on-line chemical vapor deposition process, so the self-cleaning properties are integral to the glass surface — not just a coating that can peel, separate or disintegrate over time².

The proper application of Pilkington ActivTM
Self-Cleaning Glass is with the Pilkington ActivTM
Self-Cleaning Glass surface glazed to the exterior of the building (first surface glazing), in either a monolithic or insulating glass unit. The Pilkington ActivTM
Self-Cleaning Glass surface requires several days exposure to daylight to be activated.

For enhanced energy performance and energy efficiency, Pilkington **Activ™** Glass can be combined with an inboard lite of Pilkington **Energy Advantage™** Low-E Glass (#3 surface) in an insulating glass unit.

Also now available is the newest addition to Pilkington North America's self-cleaning glass family: Pilkington Activ SP™ Glass. Activ SP™ Glass is a self-cleaning, solar control Low-E glass, consisting of 1/8" (3mm) Pilkington Activ™ Glass laminated with 0.030" PVB to 1/8" (3mm) Pilkington Solar E™ Solar Control Low-E Glass.

Pilkington **Activ SP™** Glass offers the ultimate combination of self-cleaning and solar performance,

providing excellent solar heat gain control and blocking up to 98% of the sun's harmful UV rays. In addition Pilkington **Activ SP**TM Glass offers improved



impact resistance and enhanced acoustic control, as well as color neutrality. These features combine to make it an ideal choice for large window areas and the logical choice for applications such as conservatories and sunrooms, atriums, skylights and sloped glazing.

Product Features

- SELF-CLEANING PROPERTIES...reduces the need for window-washing. In dry weather, just a quick spray of the hose will do.
- DURABLE PYROLYTIC SURFACE...minimizes rubs and scratches, won't peel, discolor or wear off and never needs re-treating, because the pyrolytic self-cleaning surface is an inherent part of the glass, not a coating that wears off.
- ENVIRONMENTALLY FRIENDLY...in its application, installation and use, and requiring less cleaning, no chemical cleaners and less detergent.
- COLOR NEUTRAL...for compatibility with all home styles and an unspoiled exterior aesthetic.
- UV CONTROL PROPERTIES...providing 20% reduction in the transmission of damaging ultraviolet energy, and up to 98% UV reduction when Pilkington Activ SPTM is used.
- EASILY FABRICATED... Activ[™] Glass can be handled, cut, insulated, laminated and tempered using standard float glass techniques, and no edge deletion is required. In addition, unlimited shelf life provides long-term storage, minimal inventory loss and assured availability.²
- IDEAL FOR...new construction, replacement and renovation applications, especially for sunrooms, conservatories, skylights and sloped glazing applications.³
- AVAILABLE IN...thicknesses including 3/32"
 (2.5mm), 1/8" (3mm), 5/32" (4mm), 3/16" (5mm) and 1/4" (6mm) and glass sizes up to 130" x 204"
 (3300mm x 5180mm). Please contact Pilkington regarding performance values for additional thicknesses not shown below.
- Illustration shows cross-section of an insulating glass unit.
 Outboard lite is shown magnified to demonstrate the effect of
 the Pilkington Activ™ Self-Cleaning Glass surface.
- Contact Pilkington for complete handling and cleaning information.
- See Pilkington Technical Bulletin ATS-169 "Pilkington Activ™ Self-Cleaning Glass Glazing Guidelines."

0.57

Pilkington Activ™ Self-Cleaning Glass

Nominal Glass Thickness		Visible Light		Total Solar Energy			U-Factor						Solar	Shading
		Trans-	Reflect-				U.S. Summer		U.S. Winter		European		Heat Gain Coeffi-	Coeffi-
in.	mm	mittance %	ance	mittance %	ance %	mittance %	Air	Argon	Air	Argon	Air	Argon	cient	cient

Monolithic Glass Performance Data

Pilkington Activ^{as} Glass (coating on #1 surface)

1/8 3 84 15 80 12 49 0.94 - 1.04 - 5.9 - 0.82 0.95

1/4 6 82 15 75 12 44 0.93 - 1.02 - 5.7 - 0.78 0.90

Pilkington Activ SP^{nst} Glass (3mm Pilkington Activ SP^{nst} Glass [laminated surface #1] laminated with 0.030" PVB to 3mm Pilkington Solar E^{nst} Solar Control Low-E Glass [laminated surface #4])

1/4 6 54 14 41 11 3 0.48 − 0.63 − 3.8 − 0.49

Insulating Glass Performance Data [Non-laminated and laminated insulating units constructed of equal glass thicknesses and 1/2" (12.7mm) airspace]

Pilkington Activ™ Glass Outer Lite (coating on #1 surface) and Pilkington Optifloat™ Clear Float Glass Inner Lite 76 21 17 40 0.51 0.48 1/8 68 2.8 0.73 0.84 1/474 21 59 16 34 0.50 0.47 0.68 0.78 Pilkington Activ™ Glass Outer Lite (coating on #1 surface) and Pilkington Energy Advantage™ Low-E Glass Inner Lite (coating on #3 surface) 70 56 20 0.33 0.28 0.33 0.29 1.6 0.68 0.79 1/8 32 69 23 51 19 27 0.33 0.28 0.33 0.29 1.6 0.74