



Technical Bulletin

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Hand Washing Pilkington **OptiView™** Anti-Reflective Glass

Summary

Pilkington **OptiView™** Anti-Reflective Glass has a coating of very thin, pyrolytic metal oxide, layers applied to its outer surface. This hard and durable coating gives the surface a greatly reduced visible reflection property compared to ordinary clear glass, but the coating does require a slightly different cleaning procedure.

Routine Cleaning Procedure

Pilkington **OptiView™** can be cleaned and maintained by hand washing with non-abrasive, ordinary domestic glass cleaning solutions, or a mild detergent and water solution.

Samples of the following two "Biobased" and "Environmentally Preferred" solutions by Spartan Chemicals, www.spartanchemical.com tel. 800 537 8990, have been hand tested on Pilkington **OptiView™**. They demonstrated a similar ability to remove dirt as typical domestic window cleaning solutions:

"BioRenewables®" Glass Cleaner #3835
"Green Solutions®" Glass Cleaner #3507

For hand washing, first rinse loose dirt abrasive dirt from the glass with a low pressure water hose. Do not dry-wipe dirt from the surface as scratching may occur. Uniformly apply the detergent solution to the glass and wash with a clean, soft cloth, sponge, or pad, rotating the pad to continually expose a fresh clean surface. Rinse thoroughly with clean water and wipe or squeegee dry immediately to remove all traces of dirt and detergent. Detergent drops left to dry on the anti-reflective coating will typically be more visible than on non-coated glass. Make sure no metal parts of the cleaning equipment touch the anti-reflective glass surface, and that no abrasive particles are trapped between the glass and the cleaning materials.

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Stubborn stains can be removed with organic solvents such as mineral spirits, de-natured alcohol, acetone, or MEK, following appropriate safety procedures and preventing the solvents from contacting adjacent paintwork, etc.. The solvent wash should be followed immediately by a detergent wash and a clean water rinse to remove solvent and dirt residues.

Warnings

Do not use harsh chemical cleaners, abrasives, opaque liquid cleaning solutions such as Soft Scrub® by Clorox, steel wool, or razor blades on the anti-reflective surface.

Do not use any strong acidic cleaners on the Pilkington **OptiView™** Anti-Reflective coating.

There are a number of commercially available solutions for 'rejuvenating' water-stained glass surfaces. These products usually contain hydrofluoric acid and can severely damage the anti-reflective coated surface of Pilkington **OptiView™** Anti-Reflective Glass and so must not be used.

Frequency of Cleaning

An exposed Pilkington **OptiView™** Anti-Reflective Glass coating will not get dirty any faster than non-coated glass in the same location, but the coated surface may show dirt, finger prints and other deposits more readily. The coating should never be allowed to become dirtier than is visibly acceptable. It should be cleaned as frequently as is necessary to prevent it from ever appearing unacceptably dirty. In this way problems with the accumulation and hardening of excessive dirt deposits can be prevented.

Spot Cleaning

Occasionally spot cleaning may be required to remove stubborn dirt or foreign materials that can adhere to the anti-reflective coated surface. Spot cleaning products work to remove paint or markings from grease, oil, tape adhesive, and crayons or other waxy materials as well as rub marks from plastics.

Recommended Spot Cleaning Products

Denatured Alcohol, Acetone or "Goof-Off" (organic solvents available at hardware stores)

Spot Cleaning Procedure

1. Apply a small quantity of one of the cleaners listed above to a clean, dry cloth or towel.
2. Rub on areas of glass needing spot cleaning.
3. Wipe the glass clean using dry, clean, lint free towel or cloth and follow with the routine cleaning procedure given above.

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Specialized Cleaning

Do not contact the coated surface with razor blades, steel wool or other metallic objects. If metallic objects lightly contact the coated surface, a thin layer of metal from the object may be deposited onto the coating resulting in a discolored stain (looking like a scratch) which would be difficult to remove using normal cleaning procedures.

Recommended Specialized Cleaning Products for Metal Marks, etc.

- Muriatic Acid (available from hardware store).
- Ultra-Safe Acid™ Muriatic Acid Replacement (available from hardware store),
produced by Bio-Safe Industries, Inc., Englewood CO
- Steel Glo® (available from grocery store)
produced by Steel Glo® Products, Kansas City MO

Specialized Cleaning Procedure for Metal Marks, etc.

1. Apply a small quantity of one of the specialized cleaning products listed above to a clean cloth, towel or "Q-tip" while following appropriate safety procedures.
2. Rub on areas of glass needing cleaning.
3. Wipe clean using a dry, clean, lint free towel or cloth followed by the routine cleaning procedure.
4. If the glass is cleaned on a regular basis, and not exposed to abuse, there should be no need for specialized washing techniques.

Contact Pilkington North America, Inc. Architectural Technical Services, tel: 419 247 4448 for further information.

The information contained in this bulletin is offered for assistance in the application of Pilkington North America Inc. flat glass products, but **IT DOES NOT CONSTITUTE A WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.** Actual performance may vary in particular applications.

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