

THE THERMOLITE WINDOW SYSTEM



ENERGY SAVINGS

ENERGY EFFICIENCY

ENERGY INTEGRITY

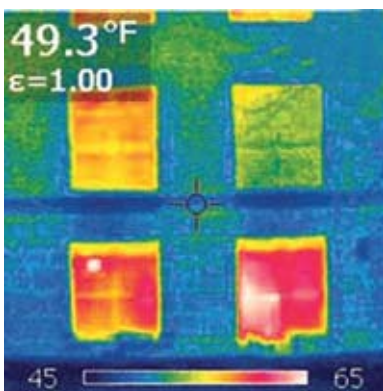
ENERGY SECURITY

FEDERAL TRADE COMMISSION BUILDING, WASHINGTON, D.C.

If you are thinking about replacement windows—

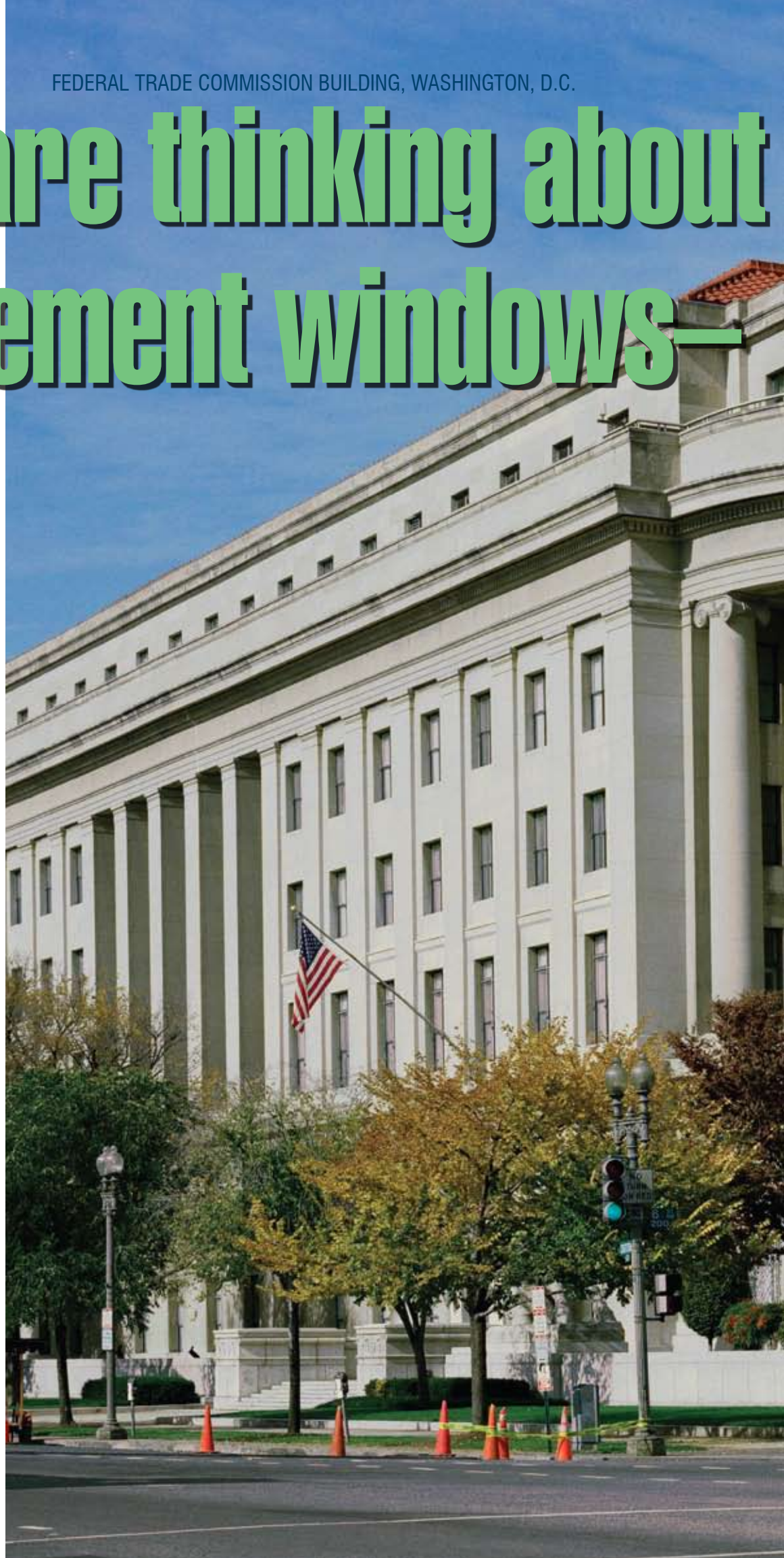


Designed to improve the performance of existing windows, Thermolite patented Window Systems are installed on the interior of windows that are structurally sound. Thermolite Window Systems work in conjunction with your existing windows to give you double or triple frame protection eliminating up to 90% of air infiltration and conduction heat loss up to 50%.



THERMAL IMAGE SCAN SHOWING THERMOLITE WINDOW (UPPER RIGHT) REDUCES HEAT LOSS.

According to the Department of Energy¹, buildings account for 40% of U.S. Primary Energy Consumption and 50% of this energy is impacted by windows; almost 14% of the total energy in the U.S.





We have been securing America's most valuable buildings for over 30 years.

The technology perfected for the federal government saves time, energy, investment capital and lives. It is now available for use in the private sector for commercial, office, educational, hospitality, banks, historic and medical building projects.

Founded in the early 1980s, Thermolite's original concept to create an insulated glass window unit, by incorporating a supplemental pane of glass behind the existing exterior building glass, has evolved into something special.

THERMOLITE WINDOW SYSTEMS

- ✓ **Lower initial investment**
- ✓ **Reduces total energy costs**
- ✓ **Reduces sound infiltration**
- ✓ **Maintains architectural integrity**
- ✓ **Non-interruptive installation**
- ✓ **Enhanced security options**
- ✓ **Reduces condensation**
- ✓ **Reduces HVAC upgrades**
- ✓ **Improves building comfort**
- ✓ **Installs from the interior**
- ✓ **Does not affect sight line**
- ✓ **Blast, Hurricane & Signal Defense upgrades**

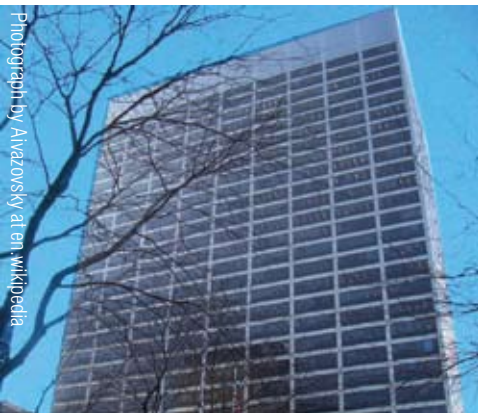
Thermolite windows install on the interior to reduce the noise infiltration, provide a security barrier and increase energy efficiency of existing windows.

ENERGY SAVINGS

- ✓ **Lower Investment**
- ✓ **Faster Return**
- ✓ **Financing Available**

Most installations realize immediate financial return with the Thermolite Window System. Besides lowering the initial investment (the “I” in ROI), the Thermolite Window System has a profound impact on the TOTAL BUILDING, which needs to be considered in your evaluation.

- 1. Reduction in energy loss provides utility savings immediately – now and into the future.**
- 2. Reduction in peak loads for electricity results in immediate utility cost reduction.**
- 3. Lower total energy demand for your building results in smaller HVAC, boiler, chiller capital cost and capacity need. This is significant.**
- 4. Reduction in load and HVAC capacity reduces the operating cost and overall maintenance cost, while extending the lifetime of this very expensive equipment.**
- 5. Financing available through our Renewable Energy Equipment Leasing partnership.**



CELEBREZZE FEDERAL BUILDING, CLEVELAND, OH



THERMOLITE WINDOWS INSTALLED IN YATES BUILDING



YATES BUILDING, WASHINGTON, D.C.

ENERGY SAVINGS

AFTER

THERMOLITE WINDOW SYSTEM INSTALLED ON YATES BUILDING

Between-the-glass blinds can be adjusted to allow the sun into the building during the colder months.

FEDERAL RESERVE BOARD ANNEX, WASHINGTON, D.C.

ENERGY EFFICIENCY

Thermolite blast windows eliminate the need for structural reinforcing while maintaining best-in-class energy performance.

NO-MESS, NON-INTERRUPTIVE INSTALLATION

A window installation project doesn't have to be messy, noisy, unsightly and disruptive. Because Thermolite Window Systems fit inside the frame of existing windows, there is very little dust and no mess. The average estimated time to complete installation per window is 2 hours, and we'll do the installation during non-work hours so your productivity and work flow will not be affected. The benefit of that is your visitors will not be greeted with a "construction zone" as they approach your building.

As a consumer, if you make an installation comparison between traditional replacement windows and Thermolite Window Systems, you'll see that shorter install time and reduced interruption of your employees' productivity contribute to an overall lower project cost. When you specify Thermolite, you get project savings now plus energy savings not only immediately but over the life of the building.

HASSLE-FREE INSTALLATION

- ✓ **No exterior scaffolding**
- ✓ **No relocation of staff**
- ✓ **Minimum mess**
- ✓ **Off-hours install available**
- ✓ **No exterior indication of on-going project**



THERMOLITE WINDOWS INSTALLED IN THE ARCHED WINDOWS AT FT. SILL. —U.S. ARMY

MAINTAINS BUILDING'S ARCHITECTURAL AND HISTORIC INTEGRITY

Thermolite Window Systems are preferred by building and project managers for historical preservation requirements because they are engineered to fit the building's original openings. Besides looking like original windows, our system virtually eliminates condensation and significantly reduces street noise with an STC49 rating.

Not only do Thermolite Window Systems extend the life of existing windows, they also protect historic or artistic treasures and interior furnishings with the addition of between-glass blinds and/or laminate which significantly reduces UV damaging rays.

HISTORIC IMPACT

- ✓ No change to sightlines
- ✓ Preserve existing windows
- ✓ Frame to match interior decor
- ✓ Virtually eliminate condensation
- ✓ Protect interior structure and furnishings
- ✓ Realize historic building credits
- ✓ Maintain historic registry



ENERGY INTEGRITY



Thermolite window systems reduce sound transmission from street traffic in office space and hotel guest room applications.



ENERGY INTEGRITY

FOLEY FEDERAL BUILDING AND UNITED STATES COURTHOUSE, LAS VEGAS, NV

ENERGY SECURITY

*Protect your people and your information using
DoD-certified signal defense and blast-resistant
glass technology by Thermolite.*



THERMOLITE WINDOW SYSTEMS CAN SAVE LIVES

Protect the most valuable part of your building—the people inside—with the Thermolite Window System. Every energy product we manufacture can be equipped with blast, ballistic, hurricane and signal defense technology.

Broken glass from windows is the largest contributor to injuries and fatalities in a blast event. In the 1995 Oklahoma City bombing, more than 40% of the injuries and fatalities were attributed to broken windows. Since then, the incorporation of blast-resistant windows in new construction for high profile buildings has been a standard practice. Existing buildings often times do not have the structural reinforcement for new blast windows and had to rely on window film which will allow the window glass to detach if it's not structurally fastened. Our system eliminates the need for structural reinforcing while maintaining high levels of blast mitigation as specified by GSA and the Department of Defense.

- ✓ **Reduces structural reinforcement**
- ✓ **Reduces anchorage needed**
- ✓ **Maintains historic integrity**
- ✓ **Most affordable high-performance blast system available**

THERMOLITE WIN PROTECT LIVES

BLAST

Our patented compression release technology allows for minimal anchoring and no structural reinforcement. What this means is lower cost, higher ROI, larger window openings, pain-free installation—all with the highest level of security possible and with the most exceptional energy performance in the industry today.

Building Classification	Examples	Minimum Overpressure	Minimum Impulse
A	No protection	0	0
B	No protection	0	0
C	Federal Courts, Federal Buildings	4 psi	28 psi ms.
D	High-level Military	10 psi	90 psi ms.
E	State Department	Classified	Classified

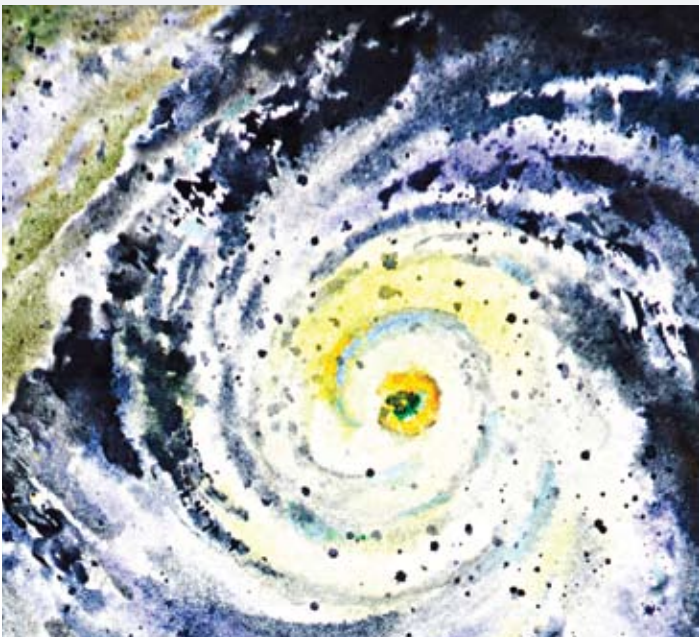
Performance Condition	Protection Level	Hazard Level	Description of Window Glazing Response
1	Safe	None	Glazing does not break. No visible damage to glazing or frame.
2	Very High	None	Glazing cracks but is retained by the frame. Dusting or very small fragments near sill or on floor acceptable.
3a	High	Very Low	Glazing cracks. Fragments enter space and land on floor no further than 3.3 ft. from the window.
3b	High	Low	Glazing cracks. Fragments enter space and land on floor no further than 10 ft. from the window.
4	Medium	Medium	Glazing cracks. Fragments enter space and land on floor and impact a vertical witness panel at a distance of no more than 10 ft. from the window at a height no greater than 2 ft. above the floor.
5	Low	High	Glazing cracks and window system fails catastrophically. Fragments enter space impacting a vertical witness panel at a distance of no more than 10 ft. from the window at a height greater than 2 ft. above the floor.

DOW SYSTEMS

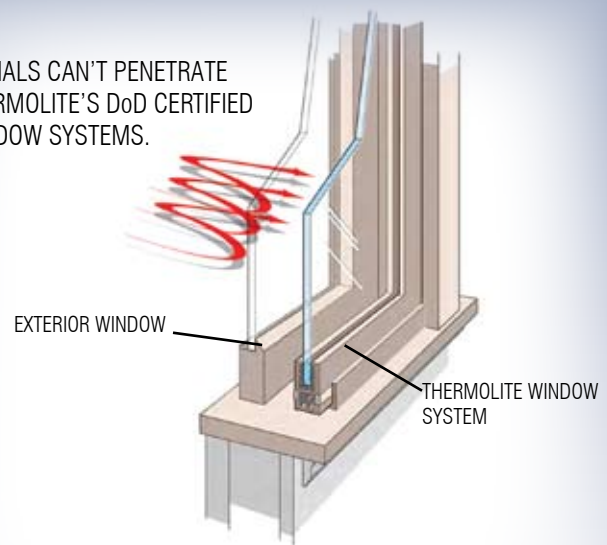
HURRICANE

Building openings like windows and doors have to be secure during a high-wind storm or the entire building will be at risk. Minimizing water damage is not the main purpose of hurricane windows. Instead, they protect the entire building from an overload of wind pressure, which may contribute to the entire roof lifting off. Wind blowing over the roof will create a negative pressure. Once the windows of a building fail, positive pressure will build up inside the structure, and total structural failure is likely.

The Thermolite Window System easily installs on the inside of the building and will secure your building. Our systems have been tested for large and small impacts and meet the strictest building codes in the country.



SIGNALS CAN'T PENETRATE
THERMOLITE'S DoD CERTIFIED
WINDOW SYSTEMS.



SIGNAL DEFENSE

Organizations desiring to properly secure locations handling sensitive and/or classified information should consider adding some kind of signal defense capabilities to the Thermolite Window System. A single event of information theft could devastate a business, and we have a solution ready to protect. Laminated glass with patented technology can be placed on the interior of your building, which will protect any kind of information from theft coming from your company's cell phones, routers or even audio espionage through the glass itself. We can provide an interior system to comply with US DoD Policy, Infrared and Radio Frequency Emanation Standard, Intelligence Community Directive 705.2, Certified TEMPEST Technical Authority (CTTA) specifications.

WHITE HOUSE VISITORS CENTER, COMMERCE BUILDING, WASHINGTON D.C.

THERMOLITE CLIENTS

UNITED STATES ARMY

UNITED STATES NAVY

NATIONAL DEFENSE
UNIVERSITY

DEPARTMENT OF
HOMELAND SECURITY

DEPARTMENT OF THE
INTERIOR

NATIONAL PARK SERVICE

DEPARTMENT OF
AGRICULTURE

FEDERAL RESERVE BANK
SYSTEM

STATE / FEDERAL
BUILDINGS

PRIVATE / PUBLIC
UNIVERSITIES

HOTELS, OFFICE &
COMMERCIAL BUILDINGS

THERMOLITE 
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Website: www.Thermolitewindows.com

Please call or e-mail us to find out how
THERMOLITE can be your window system.





WHITE HOUSE

Visitor Center

GEORGE BUSH
LIBRARY
OPENED BY PRESIDENT
GEORGE W. BUSH

Today, thanks to
your support, we
are open to the public.
We hope you
enjoy the tour.



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