

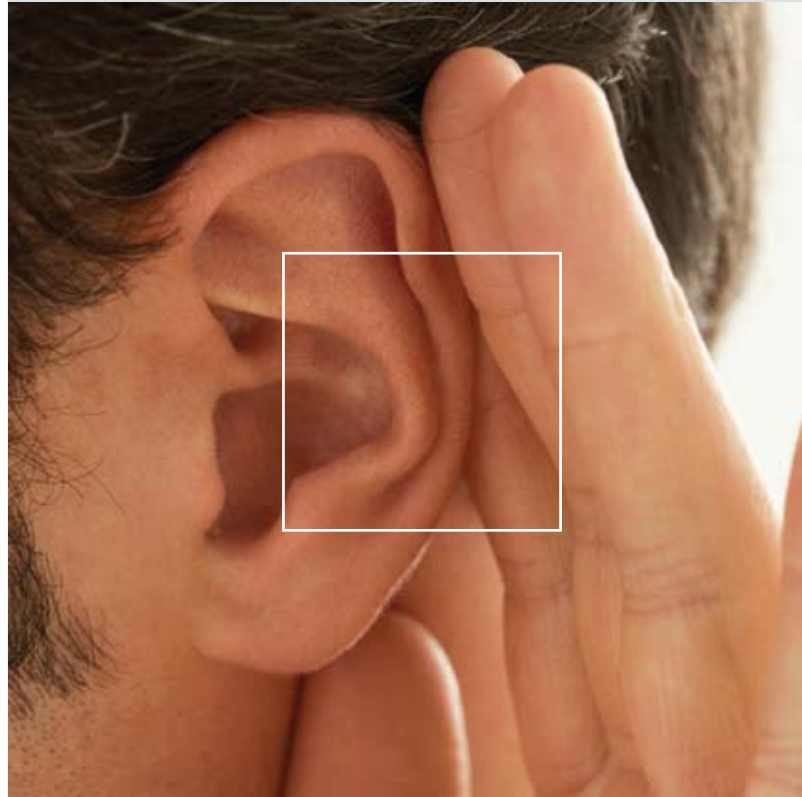
# PROFILON® SD

## Protection against eavesdropping

**PROFILON® SD is an optically clear, Radio Frequency (RF), Infrared (IR) and Ultraviolet (UV) attenuating security and safety window film. Deploying PROFILON® SD shielding technology on the glass provides: privacy, voice and data eavesdropping protection, additional security for wireless 802.11 networks and devices, RF sheltering to mitigate electromagnetic interference (EMI), IR blocking for mitigating laser microphone threats, protection for humans from damaging electromagnetic emissions exposure and very high solar energy rejection with UV blocking.**

PROFILON® SD security window coatings allow organizations to operate safely, securely and efficiently by blocking up to 99.9% of RF, IR and UV energy from penetrating through windows (works in both directions). The film coatings are optically clear and allow for portions of a building to be shielded with PROFILON® SD while maintaining the uniform appearance to the building.

IR blocking mitigates the risk of voice conversations being recorded through windows using laser microphones. Laser microphones, operating in the infrared (IR) portion of the spectrum can be used to "listen" to conversations from hundreds of meters away from the targeted facility. PROFILON® SD provides the option for blast hazard mitigation (glass fragmentation) control to combine security and safety protection in one film installation.



PROFILON® SD offers the world's highest blocking level of RF, IR, UV and solar energy as an optically clear substrate. SD Technology is the leader in the industry and has become the defacto standard for U.S. and other foreign government organizations. SD technology is also valuable for protection from electromagnetic interference (EMI) and is "Green" since it is the highest energy saving clear solar film in the world.

### PROFILON® SD provides:

- full spectrum protection for RF and IR
- mitigates RF and IR eavesdropping threats via the windows
- protection for electromagnetic interference (EMI)
- high solar energy savings
- combines RF/IR security protection with safety film/bomb blast protection
- Transparent. Install on entire building or partial building window areas

## Why is there a demand for PROFILON® SD?

The rapid deployment of wireless radio, cellular and TV masts, and the expanding use of wireless technologies such as 802.11X LANs, PDA's and cell phones create increased security vulnerabilities for security-minded organizations. Traditional building structures with glass windows do not effectively block RF and IR signal energy from leaving or entering buildings and the windows are the major vulnerability.

## Who needs protection against eavesdropping?

Classified government security organizations have been aware of the threats that exist with compromising radio-frequency (RF) and acoustic IR emissions from work environments, but only recently have these eavesdropping threats become visible to commercial organizations. According to sources within the U.S. Department of Defense, more than 200 countries have and use high-end operational grade eavesdropping equipment.

## Does PROFILON® SD change the optical appearances during the years?

PROFILON® SD includes a UV inhibitor which prevents a fading even after years of exposure.

## How is the glass laminated with PROFILON® SD?

The high performance film is laminated onto the glass using trained and certified HAVERKAMP installers on site.

## Is PROFILON® SD tested?

PROFILON® SD has been tested by public agencies and approved by the leading privacy organizations in the United States (U.S.) and the United Kingdom (UK).

## What kinds of eavesdropping does PROFILON® SD protect against?

Mitigates both RF and IR eavesdropping techniques including many Technical Surveillance Counter Measures (TSCM), including many listening devices, laser microphones, RF flood attacks, passive WLAN attempts, denial of service attacks and Traffic Analysis.

"...SD Technology is the least expensive method to mitigate the largest amount of eavesdropping techniques..." -DoD Signals & Physical Sciences Security Center

Technology	SD100	SD250	
RF	35 dB	46 dB	Eavesdropping Protection and RF sheltering for Equipment and Personnel
IR	<3%	<1%	Solar Energy Rejection and Laser Microphone Protection
UV	<1%	<1%	Fade Control and UV Sheltering for Personnel
VLT	70%	53%	Non-reflective and Clear
Blast	Yes	Yes	Glass Fragmentation Control and Spall Shield

## Technical data (depending on the variety)

IR 940nm	<3% - <1%
RF 30 MHz - 6+GHz	>33 - >46 db
UV 320 - 380nm	<1%
VLT 400 - 780nm	50% - 60%
Thickness	25µ - 250µ

Is patented (No. 7,405,872; 7,177,075; 6,891,667; 6,859,310 and contains Signals Defenses® Technology

