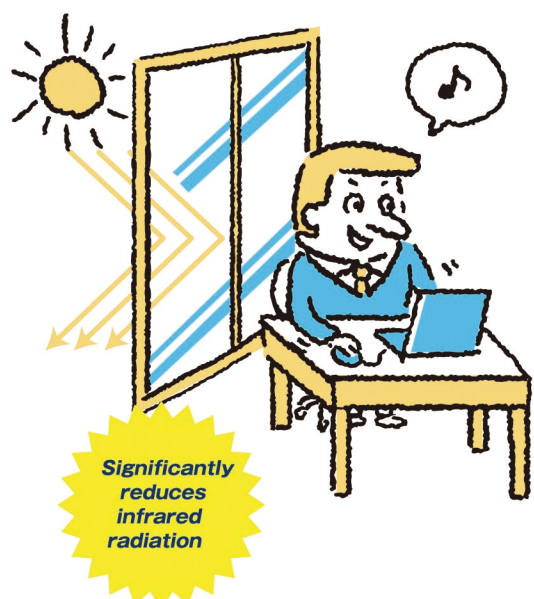


# Infrared Cut Hard-coat Film

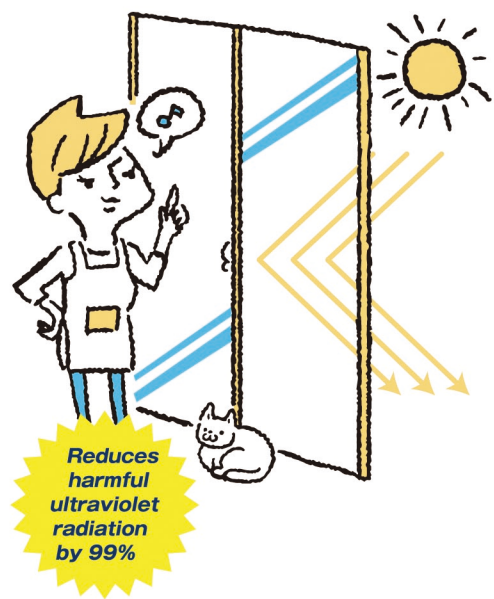
The KIWACAL Infrared Cut Hard-coat Film is a highly transparent, multifunctional film that provides a high thermal effect. The film improves air-conditioning efficiency and supports a comfortable living environment.

## Infrared Filter



Blocks over 65% to 95% of solar-infrared radiation  
Reduces heat near windows.

## Ultraviolet Filter



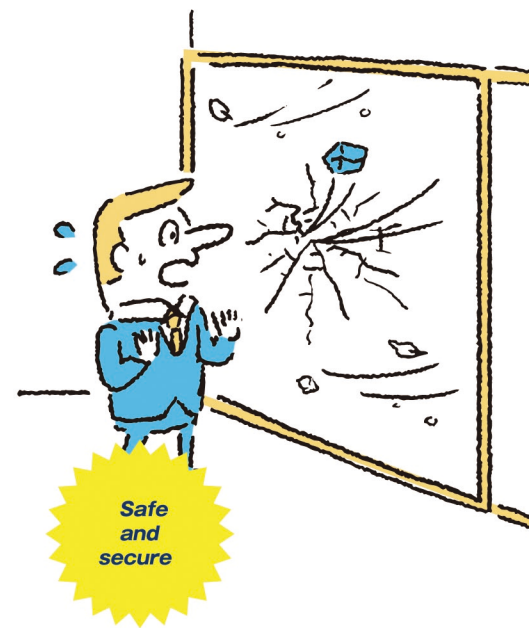
Reduces harmful ultraviolet radiation by 99%. Mitigates not only adverse effects on the human body, but also discoloration of furniture and carpets.

## High Transparency



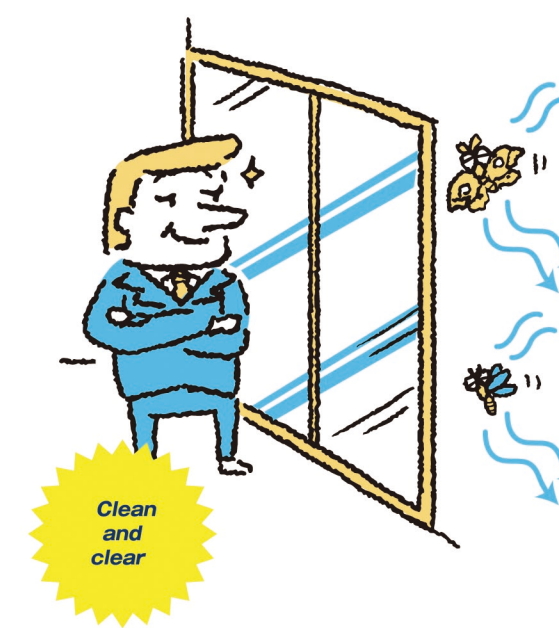
Visible transmittance of 70% or higher. Supports a clear visual range, both day and night.

## Shatter-proof



Prevents glass from shattering in the event of breakage. Optimal for car windows as well as office windows.

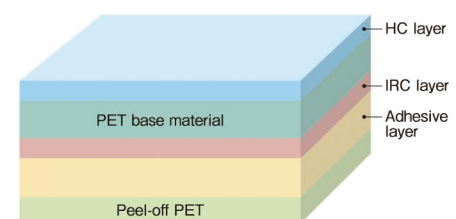
## Insect Repellent Effect



Repels mosquitoes, flies, and other pests.

### Optimal structure for actualizing heat-reducing and energy-saving measures

The KIWACAL Infrared Cut Hard-coat Film is mainly composed of an HC layer that protects against scratches, an IRC layer that exhibits functionality, and an adhesive layer that affixes the film to a glass surface.



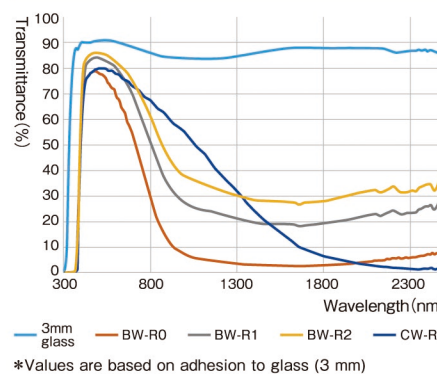
### BW type for higher infrared filtration effect

The KIWACAL Infrared Cut Hard-coat Film BW type has an average infrared-absorption rate of 94% in the near-infrared range (780 nm to 2500 nm). The high-absorbency coating provides a room-temperature retaining effect, in addition to excellent infrared filtration performance.

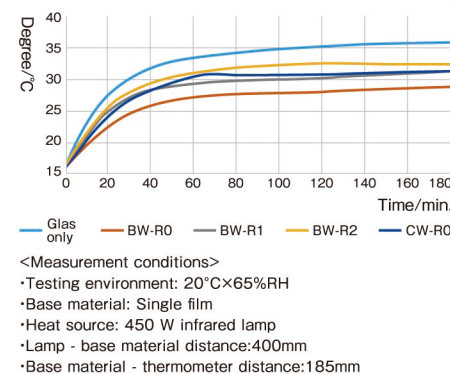
### CW type for superior transparency

The KIWACAL Infrared Cut Hard-coat Film CW type has a visible transmittance of about 80% in the visible light range (380 nm to 780 nm). This film also provides the room-temperature retaining effect of the BW type, and therefore exhibits excellent functionality for use in vehicles as well.

Spectral Transmission Curve



Film Thermal Effect Measurement Results



Performance Chart

	BW-R038	BW-R050	BW-R150	BW-R250	CW-R025	CW-R050
Thickness (base material thickness)	38μm	50μm	50μm	50μm	25μm	50μm
Total film thickness (excluding detachable PET)	60μm	72μm	72μm	72μm	49μm	76μm
Ultraviolet filtration rate	99%	99%	99%	99%	99%	99%
Visible transmittance	72%	72%	81%	85%	81%	81%
Near-infrared filtration rate	94%	94%	82%	65%	73%	73%
Anti-interference pattern	-	○	○	○	-	○

Installation Example \*using BW-R0

