ADVANCED MATERIALS FOR
NET-ZERO COOLING

COLUMBIA
INNOVATION

iFilm

ONE FILM FOR INSTANT COOLING

94%
MAXIMUM
MID-INFRARED EMISSIVITY

99.9%
MAXIMUM
INFRARED REDUCTION

75%
MAXIMUM VISIBLE
LIGHT TRANSMITTANCE

100%
MAXIMUM
ULTRAVIOLET REJECTION

COMPREHENSIVE PERFORMANCE
Long-lasting and high-efficient cooling

SUPERIOR TOUGHNESS
Excellent tensile elongation
to prevent explosion

HIGH UV PROTECTION
Protects skin health;
Extends product lifespan

EFFICIENT COOLING
Surface temperature reduction up to 15.4°C

HIGH TRANSMITTANCE
Clear visibility
Visible light transmittance up to 75%

DIVERSE COLOUR OPTIONS
Blue, green, grey, etc.

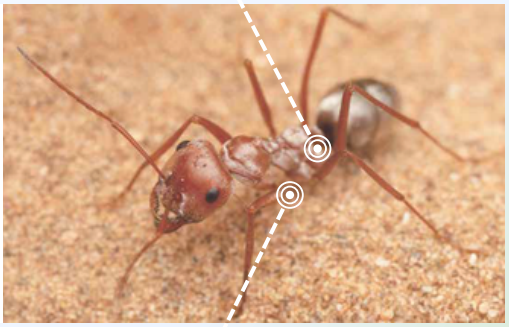
Our high-performance PET optical microfilm delivers up to 94% mid-infrared emissivity, blocking heat before it enters your space. Through advanced multilayer reflection and refraction, it significantly reduces indoor temperatures while maintaining crystal-clear visibility and strong UV protection. Designed for interior glass surfaces, it strikes the perfect balance between light transmission and thermal insulation – helping cut down on air conditioning costs without compromising comfort or clarity.

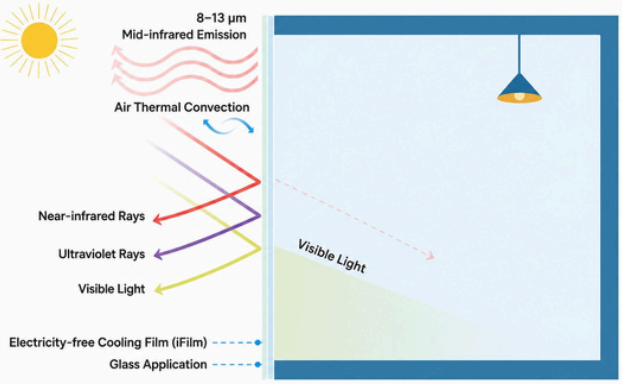
INSIDE THE TECHNOLOGY

Inspired by the Saharan silver ant - nature's master of heat deflection - we've developed a revolutionary cooling technology. Using advanced nanomaterials and smart design, our coatings reflect up to 95% of solar radiation and release heat back into space. The result? Powerful, electricity-free cooling that requires no energy, no refrigerants, and delivers performance beyond traditional insulation. It's a smarter, greener way to stay cool.

Working Principle Inspired by Nature

The triangular cross-section of their hairs effectively reflects visible light and near-infrared light from various angles of incidence.

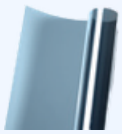




STANDARD VERSION

VARIOUS LEVELS OF VISIBLE LIGHT TRANSMITTANCE PROVIDE VERSATILE APPLICATION SCENARIOS WITH A HIGH INSULATION RATE FOR IMPROVED INDOOR COMFORT

EFC-LB-70



Visible Light Transmittance	UV Rejection	Infrared Rejection	Mid-Infrared Rejection	Light-To-Solar Heat Gain Ratio	Solar Heat Gain Coefficient	Shading Coefficient	Solar Transmittance	Solar Reflectance	Solar Absorption
70%	99.9%	99.9%	90.2%	148.8%	47%	0.54	30.64%	5.6%	63.96%

ADVANCED VERSION

HIGH LIGHT TRANSMITTANCE FOR BETTER VISUAL APPEAL AND UV BLOCKING TO EXTEND THE LIFESPAN OF INDOOR FURNITURE

EFC-G-75

Visible Light Transmittance	UV Rejection	Infrared Rejection	Mid-Infrared Rejection	Light-To-Solar Heat Gain Ratio	Solar Heat Gain Coefficient	Shading Coefficient	Solar Transmittance	Solar Reflectance	Solar Absorption
75%	99.9%	91%	92.2%	159.6%	47%	0.54	42.9%	41.21%	15.89%

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