

PRODUCT INFORMATION	TYPE OF PRODUCT	Energy Film
	COMPANY NAME	Energy Film
	PRODUCT/COLLECTION NAME	Energy Film 75
	DESCRIPTION	Window films are an efficient way to control heat, glare and fading without blocking your view. Heat Control window film conserves energy and can lower cooling costs by up to 50%. Window film also blocks up to 99% UV rays to reduce fading of interior furnishings. Designed for the do-it-yourselfer, easy-to-install window films are a durable and affordable alternative to professionally installed window glazes.
MATERIAL FEEDSTOCK	MATERIAL CONTENT	Energy film is made of a spectrally selective material that blocks thermal solar energy in summer and reduces heat loss through windows in winter. It reduces fading of home furnishings while providing excellent visual clarity.
	RECYCLED CONTENT %	The overall product achieved more than a 75% recycling rate
	RAPIDLY RENEWABLE CONTENT %	None
	HARMFUL ADDITIVES	None
	HARMFUL EMISSIONS	None
	EMISSION STRENGTH OVER TIME	None
	TREATMENTS	n/a
MANUFACTURING	MANUFACTURING PROCESS	Not applicable
	HARMFUL EMISSIONS	None
	LOCATION OF MANUF. PLANT	Oregon
	TESTS/CODES	ANSI Z.97, CPSC 16 CFR 1201, Cat II (400 ft-lb)
	3RD PARTY CERTIFICATION	Not applicable
INSTALLATION	INSTALLATION PROCEDURE	Window films require few specialized tools to install on normal panes of glass and may be installed by consumers. Special care, cutting, and sizing must be taken on more complicated glass such as curved auto glass. Curved glass requires that the window film be shrunk to shape. Without the proper tools and techniques for curved glass, window filming may bubble or separate from the glass. Window film is typically installed after surfaces are thoroughly cleaned and wiped using a formulated cleaner, scraper blade, and squeegee. A simple soap solution is squirted on the glass before the film layer is applied to allow for a bubble-free installation. Window film is installed on the interior side of a window.
	INSTALLATION ADHESIVES	It applies easily to any smooth glass surface without adhesives.
	UNIT COST	The ceramic and metallic window films usually cost 10–15 percent more than regular window film but can reduce energy transmission by as much as 80 percent. Ceramic window films cost slightly more but provide a substantial increase in blocking UV rays and ability to control heat transfer.
	LIFE CYCLE ANALYSIS EXTRACTION	Durable
	END OF SERVICE LIFE	May be recyclable
MISC. PROPERTIES	QUALITIES/PROPERTIES OF PRODUCT	Window films are an efficient way to control heat, glare and fading without blocking your view. Heat Control window film conserves energy and can lower cooling costs by up to 50%. Window film also blocks up to 99% UV rays to reduce fading of interior furnishings. Designed for the do-it-yourselfer, easy-to-install window films are a durable and affordable alternative to professionally installed window glazes. Clear and tinted available.
	MISC. COMMENTS	Helps to conserve energy, lowers energy cost and blocks up to 65% of solar energy in summer and 38% of heat loss in winter.
	CONTRIBUTION TO LEED POINTS	The thicker window films known as safety and security window film are designed to perform under extreme conditions, and as such there are specific standard criteria these films should meet, such as American standards ANSI Z.97, CPSC 16 CFR 1201, Cat II (400 ft-lb), and the British Standards BS 6206 (Class A, B, C). The European Committee for

		Standardization offers the EN12600 standard Classification of Resistance of Glazing to Impact. Often, building codes dictate that a film must have a report verifying that it has met at least one of these standards.
<u>COMPANY PROFILE</u>	GREEN PHILOSOPHY	Solar window film is usually subject to less critical testing. However, standards are in place to maintain a level of quality in the industry. The ANSI Standards ASTM E903 and ASTM D1044-93 relate to the solar/UV transmission properties and abrasion resistance, respectively. The larger window film manufacturers use these standards to guarantee the quality of their raw materials and finished products.
	CONTACT	P.O.BOX 10165, Portland, OR 97296-0165 www.energy-film.com
<u>MAINTENANCE</u>	AFTER INSTALLATION	Optical clarity will significantly improve over 2to3 days as the water used in the application process evaporates.