Pilkington **Energy Advantage**™ Low-E Glass

PILKINGTON
NSG Group Flat Glass Business

Energy Savings Made Clearer

Pilkington **Energy Advantage™** is the clearest choice for Low-E technologies available today, with superior thermal control: enhanced insulation and high solar heat gain.

The evolution of Pilkington **Energy Advantage™** has resulted in improved clarity, for superior views and aesthetics. There is no off-angle color as found with common sputter coated glass products.

Pilkington **Energy Advantage™** is the clearest choice for a high passive solar heat gain coefficient, high visible light transmittance and brilliant clarity.

Pilkington **Energy Advantage™** currently retains its position as a top performer in the Canadian Energy Rating (ER).

Pilkington **Energy Advantage™** is known as a leading passive solar glazing product in the market. The pyrolytic Low-E coating provides thermal insulation by reducing heat loss.

The patented pyrolytic coating saves energy by allowing solar energy to pass through the glazing and enter into the home, while preventing heat loss.

For even better thermal performance, add Pilkington **Energy Advantage™** to the #4 surface. Low-E 4th Surface Technology will significantly reduce the center-of-glass U-Factor by 45%, compared to an insulating glass unit with two lites of clear.

Adding Pilkington **Energy Advantage™** to the #4 surface of a Low-E insulating glass unit can achieve R-5 insulating performance.

Most sputter coated Low-E products reflect solar infrared heat, lowering the solar heat gain and minimizing the benefits of passive solar heat.

Pilkington **Energy Advantage™** does not reflect as much solar infrared heat as most sputter coated glass products - it allows the beneficial winter heat to easily pass through the glazing.

Features and Benefits

- Energy efficient;
- High clarity;
- Passive solar heat gain;
- High light transmittance;
- Durable pyrolytic surface;
- Improve design flexibility;
- Excellent availability;
- Reduce lead times;
- Monolithic and insulated glass units;
- Available in large sizes.

Applications

- Residential buildings requiring thermal insulation;
- Low and mid-rise housing;
- Low-E 4th Surface Technology to meet energy code requirements and achieve R-5 insulating performance.

The Pyrolytic Advantage

- Easily handled, tempered, cut, bent, laminated, insulated and heat-strengthened;
- No edge deletion required;
- Unlimited shelf life;
- Heat treatable without color shift;
- Inventoried locally;
- Reduce lead times for new construction and replacements.

Available Thicknesses

- 3/32" (2.5 mm)
- 1/8" (3 mm)
- 5/32" (4 mm)

Available Stock Sizes

- 48" x 84"
- 65" x 96"
- 72" x 84"
- 72" x 96"
- 72" x 130"
- 84" x 130"
- 96" x 130"
- 96" x 144"
- 102" x 144"

Here's How it Works

The Pilkington **Energy Advantage™** coating reduces the emissivity of the surface for better insulation and it allows solar energy to pass through the glass and enter the home.
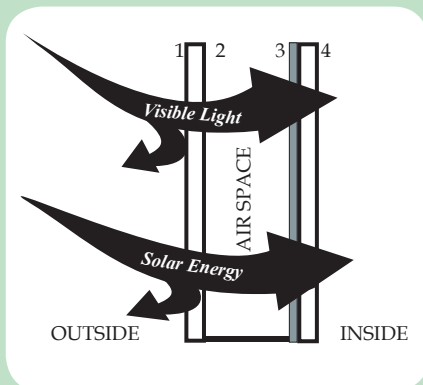
Pilkington **Energy Advantage™** allows direct solar heat gain to pass through the glazing and prevents heat loss.
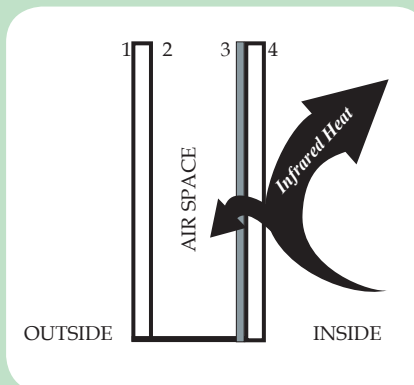
The Low-E coating directs heat created inside the house, either from absorbed sunshine or generated from a furnace or other heater, back inside.

Monolithic Glass Performance Data [1, 10]

	Nominal Glass Thickness		Visible Light[2]			Solar Energy[2]			U-Factor[5]			Solar Heat Gain Coefficient[7]	Shading Coefficient[8]
			Transmittance[3]	Reflectance[4] %		Transmittance[3] %	Reflectance[4] %	UV Transmittance[2] %	U.S. Summer*	U.S. Winter*	European**		
	in.	mm		Outside	Inside								
Pilkington **Energy Advantage™** (#2 Surface)	3/32	2.5	84	11	11	75	11	67	0.50	0.66	3.7	0.77	0.89
	1/8	3	84	11	11	74	11	66	0.50	0.65	3.7	0.76	0.88
	5/32	4	84	11	11	73	11	64	0.50	0.65	3.7	0.76	0.87

Insulating Glass Performance Data [1, 10]

	Nominal Glass Thickness		Visible Light[2]			Solar Energy[2]			U-Factor[5]						Solar Heat Gain Coefficient[7]	Shading Coefficient[8]
			Transmittance[3]	Reflectance[4] %		Transmittance[3] %	Reflectance[4] %	UV Transmittance[2] %	U.S. Summer*		U.S. Winter*		Europe**			
	in.	mm		Outside	Inside				Air	Argon	Air	Argon	Air	Argon		
Pilkington **Energy Advantage™** Outer Lite (#2 Surface) and Pilkington **Optifloat™** Clear Inner Lite	3/32	2.5	77	17	18	67	16	58	0.33	0.28	0.34	0.29	1.9	1.6	0.70	0.81
	1/8	3	77	17	17	66	16	55	0.33	0.28	0.34	0.29	1.9	1.6	0.69	0.80
	5/32	4	77	16	17	64	15	53	0.33	0.28	0.34	0.29	1.9	1.6	0.69	0.79
Pilkington **Optifloat™** Clear Outer Lite and Pilkington **Energy Advantage™** Inner Lite (#3 Surface)	3/32	2.5	77	18	17	67	17	58	0.33	0.28	0.34	0.29	1.9	1.6	0.76	0.88
	1/8	3	77	17	17	66	17	55	0.33	0.28	0.34	0.29	1.9	1.6	0.75	0.87
	5/32	4	77	17	16	64	17	53	0.33	0.28	0.34	0.29	1.9	1.6	0.74	0.85
Pilkington **Energy Advantage™** Outer Lite (#2 Surface) and Pilkington **Energy Advantage™** Inner Lite (#4 Surface)	3/32	2.5	72	18	19	60	17	47	0.25	0.22	0.26	0.23	1.6	1.4	0.66	0.76
	1/8	3	72	18	19	58	17	46	0.25	0.22	0.26	0.23	1.6	1.4	0.65	0.75
	5/32	4	71	18	19	57	17	44	0.25	0.22	0.26	0.23	1.6	1.4	0.64	0.74

Insulating units constructed of equal glass thickness: 1/4" contains a 1/2" airspace (1" overall thickness); 5/16" contains a 1/2" airspace (1 1/8" overall thickness)

*U.S. U-Factor (Btu/hr.sq ft. ºF) is based on NFRC/ASTM standards, **European U-Factor (W/sq m K) is based on EN 410/673 (CEN) standard

All performance values are center-of-glass values calculated by the LBNL Window 5.2 program. See Pilkington Architectural Product Guide for explanation of footnotes.

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