

Commercial Solutions Division

3M™ Thinsulate™ Window Film CC75

Climate Control Window Film

Product Bulletin

1. Product Description

3M™ Thinsulate™ Window Film Climate Control 75 is a combined solar control and insulating window film for interior applications.

2. Applications

3M™ Thinsulate™ Window Film Climate Control 75 is intended for interior application on flat glass substrates.

3. Typical Properties

These are indicative values for 3M™ Window Film products.

Product construction	
Material base	Metallized Polyester
Adhesive	Pressure sensitive acrylic
Protective liner	Siliconized PET

Typical Performance Properties according to EN 410												
Glass Type	Film Type	Visible Light			Total Solar Energy Rejected	G Value (SHGC)	LSG (Light to solar gain)	U Value		Heat Loss Reduction	Heat Gain Reduction	Glare Reduction
		Reflected (interior)	Reflected (exterior)	Transmission				btu/hft²F	W/m²K			
Single Pane												
Clear	No Film	9	8	89	19	0.82	1.1	1.03	5.9	NA	NA	NA
	TCC 75	12	16	74	47	0.53	1.4	0.62	3.6	40	35	17
Tinted	No Film	6	6	53	37	0.63	0.8	1.03	5.9	NA	NA	NA
	TCC 75	10	8	44	60	0.4	1.1	0.62	3.6	40	37	17
Double Pane												
Clear	No Film	15	15	79	30	0.7	1.1	0.47	2.6	NA	NA	NA
	TCC 75	17	21	66	49	0.51	1.3	0.36	2.0	26	27	16
Tinted	No Film	13	8	47	49	0.51	0.9	0.47	2.6	NA	NA	NA
	TCC 75	15	10	40	63	0.37	1.1	0.35	2.0	26	27	15

The values above are the results of illustrative lab test measurements and shall not be considered as a commitment from 3M.

4. User Information

4.1 Shelf Life & Storage (prior to application)

Shelf life is 5 years from the manufacturing date. Material should be stored in its original packaging, laying in a horizontal orientation, away from direct sunlight. Heavy objects should not be placed on top of it to avoid damaging the product. Recommended storage conditions are +21°C and 40 – 50% relative humidity. Avoid extreme temperature ranges in storage.

The shelf life as defined above remains an indicative and maximum data, subject to many external and non-controllable factors. It may never be interpreted as warranty.

4.2 Application

These are indicative values for 3M™ Window Film products.

Recommended substrate	Glass (as described in EN 15755-1)
Recommended surface	Flat to simple curved
Application method	Suitable for wet application
Application temperature	From +4°C to +45°C
Application guidelines	Use a firm, narrow squeegee e.g. Blue Max 12.7 cm. Use both hands to apply consistent, firm pressure across the squeegee blade. Overlap 50% from previous stroke. Remove as much water as possible in one pass.
Service temperature	From -40°C to +70°C
Edge sealing	Not necessary
Drying time	Low E films have a strong barrier layer which slows drying time. Water left behind can accumulate and form visible pockets. Once all water is removed, final adhesion is reached after approximately 30 days at +18°C and dry conditions. Please refer to local instructions for details.

4.3 Recommendations for installation locations

High Traffic Areas – Entrance doors, sliding patio doors or windows that people touch frequently. Due to the unique hardcoat construction, hand and finger oils are more easily visible on Thinsulate Climate Control window film, so you may find yourself cleaning it more often when it is touched. In addition, the Thinsulate hardcoat is not as scratch resistant as the other 3M window film hardcoats, making it more susceptible to scratches from rings or other hard objects pushing against the film. If people will push against the film rather than using the door handles scratching is likely. Putting another, protective film over Thinsulate to provide more scratch resistance will eliminate its low-e properties.

High Humidity Areas – Areas like pools, bathrooms, or near kitchen sinks. Due to the low-e properties of Thinsulate Climate Control window film, it will maintain a lower glass surface temperature on the windows where it is applied. If those windows are in high humidity areas, you can expect the amount of water condensation to be significantly more than it was prior to the film application. If the window currently gets condensation, it is not recommended to apply Thinsulate.

Salt Air Exposure – As with other metal surfaces, Thinsulate Climate Control may be affected by salt air environments. Salt acts as a corrosion agent, deteriorating metal, paint and other building surfaces. Coastal zones with higher salt, corrosive pollution and/or airborne particulate, and a regular source of moisture present a higher risk for corrosion. The distance salt travel inland is highly dependent on factors such as topography, wind speed, water droplet size and the coastal concentration of salt aerosols. In some locations coastal salt will only be an issue within a mile of shore, while in others significant concentrations can be found 200 miles in from shore. It is especially important to avoid installation in buildings or homes with open windows that allow direct salt air exposure. Commercial office buildings that have closed windows and climate-controlled atmospheres will be at significantly less risk.

Direct Sunlight Exposure to Film Interior – Casement windows, bay windows, or three season porches. It is best to avoid any installation where the Thinsulate hardcoat sees direct sunlight, such as casement windows that can be opened to the outside air or three season porches / bay windows where the light can come through adjacent windows to hit the film on its metallic side

Transportation – Busses, trains, trams, boats, cars. These are areas of high traffic and high humidity. For the reasons given above, Thinsulate Climate Control is not recommended for use in vehicles of any kind.

4.4 Maintenance and Cleaning

Use a cleaning agent designed for high quality glass surfaces. The cleaning agent must be wet and non- abrasive with a pH value between 6 and 8 (neither strongly acidic nor strongly alkaline). Use wet cotton wipes or wet paper towels to clean Thinsulate Climate Control. Dry microfiber cloths can be used to clean Thinsulate Climate Control. Never use a wet microfiber cloth.

5. Remarks

This bulletin provides technical information only.
To request additional product information see address below.

Important Notice

All questions of warranty and liability relating to this product are governed by the terms and conditions of the sale, subject, where applicable, to the prevailing law.
Before using, the user must determine the suitability of the product for its required or intended use, and the user assumes all risk and liability whatsoever in connection therewith.

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