

# 3M™ Scotchshield™ Safety and Security Window Film

## Ultra Night Vision S25

### Technical Data

#### Product Features & Benefits

- Combination safety / solar control window film
- Micro-layered film designed for tear resistance
- Moderately tinted for privacy with low interior reflectivity
- Helps protect from broken glass hazards
- Increase comfort and help reduce air conditioning costs
- Helps extend the life of furnishings by significantly reducing harmful UV rays

#### Applications

- Bomb Blast Mitigation
- Building Envelope Protection
- Helping to Deter Break & Entry
- Safety Glazing
- Seismic Preparedness
- Spontaneous Glass Breakage

#### Performance Testing\*

Method	Glass Substrate	Film Attachment	Rating	
<b>Safety Glazing / Impact Rating</b>				
16 CFR 1201	¼" annealed	--	Category 2, 400 ft-lbs	
ANSI Z97.1			Class A (Unlimited), 400 ft-lbs	
<b>Blast Mitigation</b>			<b>Blast Load</b>	<b>Rating</b>
GSA TS01-2003 / ASTM F1642	¼" annealed	IPA	6 psi, 42 psi*msec	GSA Level 2 / ASTM "No Hazard"
	1" double pane (annealed)	IPP	6 psi, 42 psi*msec	GSA Level 2 / ASTM "No Hazard"
	¼" tempered	IPP	4 psi, 28 psi*msec	GSA Level 3B / ASTM "Minimal Hazard"
	1" double pane (tempered)	IPA	8 psi, 60 psi*msec	GSA Level 2 / ASTM "No Hazard"

\* Glazing systems vary. Contact 3M for more information.

#### Film Properties (nominal, not for specification purposes)

Film Thickness	8 mils
Film Construction	Micro-layered Laminated
Tensile Strength	27,000 psi
Break Strength	215 lbs/in
Elongation at Break	95%
Yield Strength	15,000 psi
Elongation at Yield	8%
Modulus	600 kpsi
Abrasion Resistance (ASTM D1044)	3% Δ Haze
Peel Strength (ASTM D3330)	4.5 lb/in
Flammability (ASTM E84)	Class A
Graves Area Tear Resistance (ASTM D1004)	1,100 lbs%
Puncture-Propagation-Tear (ASTM D2582)	10 lbf
Puncture Strength (ASTM D4830)	140 lbf

Solar Properties – film applied to ¼" glass				
	¼" Clear	¼" Tint	Dual Clear	Dual Tint
VLT	24%	15%	22%	13%
VLR-Int	7%	7%	8%	8%
VLR-Ext	19%	10%	24%	11%
SHGC	0.40	0.38	0.50	0.38
TSER	60%	62%	50%	62%
UV Block	99.9%	99.9%	99.9%	99.9%
Glare ↓	73%	73%	73%	73%
U-Value	1.02	1.02	0.47	0.47
Solar Heat ↓	51%	40%	28%	24%

#### IMPORTANT NOTICE:

This product is **not approved** in the State of Florida for use as hurricane, windstorm, or impact protection from wind-borne debris from a hurricane or windstorm. In compliance with Florida Statute 553.842, this product may not be advertised, sold, offered, provided, distributed, or marketed in the State of Florida as hurricane, windstorm, or impact protection from wind-borne debris from a hurricane or windstorm.

The information provided in this report is believed to be reliable; however, due to the wide variety of intervening factors, 3M does not warrant that the results will necessarily be obtained. All details concerning product specifications and terms of sale are available from 3M.



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