



# Protecting Glass Inside and Out

Safety Exterior



Guardrail Glass



Balcony Glass



Exterior Glass Wall

## Benefits

- Designed for both exterior and interior applications
- New and improved exterior durability gives you an extended warranty from the most trusted global brand in window films
- Holds shattered glass together to protect from the hazards of:
  - Spontaneous glass breakage
  - Seismic events
  - Low force glass impacts
- Glass fragment retention film for increased protection for people, property and possessions
- Can be combined with 3M™ Impact Protection attachment systems for additional safety and security
- Helps extend the life of furnishings by significantly reducing harmful UV rays, the largest cause of fading

- ★★★★ Best (preferred product for this application)
- ★★★ Better (suitable for this application)
- ★★ Good (some limited benefits in this application)
- ★ Fair (other products more suitable for this application)
- NR (Not recommended)

	S20X	S40X	S70X
Exterior Use	★★★★★	★★★★★	★★★★★
Spontaneous Glass Breakage	★★★★★	★★★★★	★★★★★
Seismic Preparedness	★★★	★★★★★	★★★★★
Safety Glazing	★	★★	★★★★
Anti-Graffiti	NR	★★	★★

## Valued Associations & Alliances





## Exterior Safety and Security Window Film

- 3M's extensive weathering knowledge AND technical innovations enable durable exterior safety films

### Common Applications

- Tempered glass
- Curtain walls
- Balcony glass
- Glass railing systems, guards and balustrades
- Skylights
- Code compliance



## Seismic and Spontaneous Glass Breakage

- Help keep glass fragments from falling from your windows, protecting people and potentially reducing injuries on your property

### Completed Testing

- ANSI Z97.1
- 16 CFR CPSC 1201
- EN 12600
- JIS A5759



## Safety Glazing and Human Impact

- Upgrade your glass to meet safety glazing codes
- Help protect your occupants from broken glass hazards

### Completed Testing

- ANSI Z97.1
- 16 CFR CPSC 1201
- EN 12600
- JIS A5759



## Anti-Graffiti

- Protect your glass and your image from vandalism caused by scratching, gouging, tagging or acid etching
- Less costly and less disruptive than replacing new windows

### Completed Testing

- ASTM G151

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

Film Type	Film Thickness	Construction	Tensile Strength	Break Strength	Elongation at Break	Peel Strength	Abrasion Resistance
Safety S20X	2 mil (0.05mm)	Single ply	25,000 psi (172 MPa)	50 lbs/in (223 N / 25mm)	>88%	> 6 lbs/in (27 N / 25mm)	<5%
Safety S40X	4 mil (0.1mm)	Single ply	25,000 psi (172 MPa)	100 lbs/in (445 N / 25mm)	>115%	> 6 lbs/in (27 N / 25mm)	<5%
Safety S70X	7 mil (0.18mm)	Single ply	25,000 psi (172 MPa)	154 lbs/in (685 N / 25mm)	>125%	> 6 lbs/in (27 N / 25mm)	<5%

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### 3M Renewable Energy Division Window Films

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