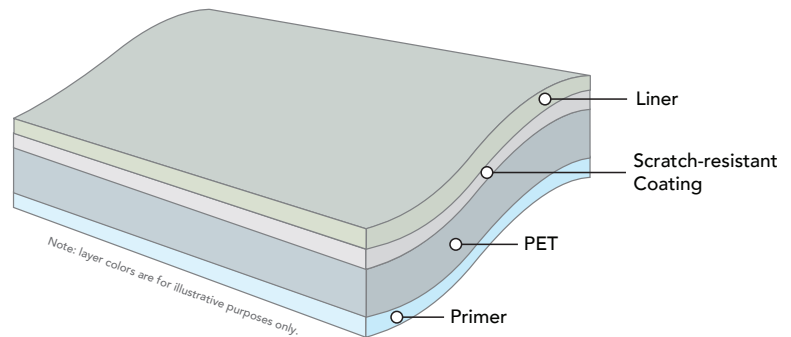


## Anti-Spall Films for PVB

Madico Anti-Spall films are designed to improve ballistic glass and security glass products. These films offer an excellent solution for reducing weight, adding strength and increasing the safety of glazing. Madico Anti-Spall films are PET-based films made of various constructions designed to combine anti-spall properties with an excellent scratch resistant hard coat on the interior (air) side of the final product construction.

### Material Construction - CL 700 SRB PVB:

Total laminate thickness .....7 mil  
All thicknesses are based on nominal data.



### Benefits:

- Spall protection
- Weight reduction
- Chemically resistant
- Excellent optical performance
- Similar to laminated glass
- Superior scratch-resistant hard coat

### Available Widths:

- 91 cm / 36"
- 120 cm / 48"
- 150 cm / 60"
- 182 cm / 72"

### Applications:

#### Automotive:

- Sunroofs
- Windshields
- Side and rear lites

#### Defense/Security:

- Bullet-resistant glazing
- Forced entry-resistant glazing
- Detention center glazing
- Blast-resistant glazing

#### Transportation:

- Rail car windscreens
- Mass transit vehicles
- Marine vessels

#### Architectural Glazing:

- Skylights
- Curtain walls
- Security doors



## Anti-Spall Films for PVB

Madico's Anti-Spall films are used with PVB interlayers to produce a lighter weight product construction and improved spall protection on glazing systems.

### Performance Measurements

#### Visible Light:

Transmitted ..... >90%  
Reflected Exterior ..... 10%

#### Physical Properties:

Tensile Strength ..... 28,500 PSI Average MD/TD  
Elongation at Break ..... 160% / 85% (MD/TD)  
Scratch Resistance ..... <1.0% Delta Haze ASTM D-1044-85  
Peel Strength (ASTM D-3167 Results) ..... >130lb / in.  
Mounting Adhesive ..... None

#### Haze:

Pre-processing (film only) ..... ≤0.50%  
Post-autoclaving (on 1/4" glass with 30 mil PVB) ..... ≤0.40%

#### Cross-hatch Adhesion:

ASTM D3359, % Area Removed ..... 0.0  
Test B Rating ..... 5B

#### Chemical Resistance:

Alcohols ..... Resistant  
Aldehydes ..... Resistant  
Hydrocarbons ..... Resistant  
Chlorinated Solvents ..... Resistant

#### Acids:

Diluted (<10%) ..... Resistant  
(Includes Hydrofluoric Acid)  
Concentrated ..... Limited Resistance

#### Alkalies:

Diluted (<10%) ..... Resistant  
Concentrated ..... Limited Resistance

*The representations of performance and suitability for use contained in this datasheet are guidelines. Since only the user is aware of the specific conditions in which the product is to be used, responsibility to determine whether the product is suitable for that intended need belongs to the purchaser.*

