

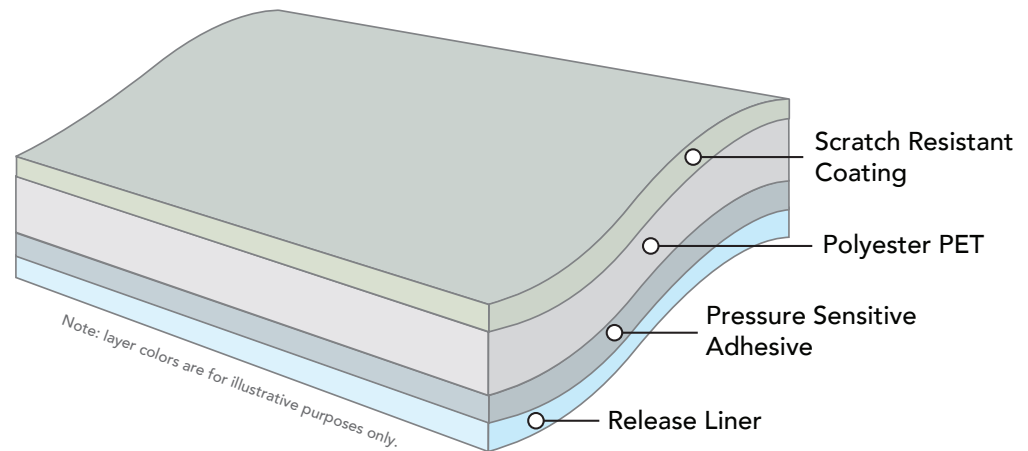
### CL-400-HPF

High Performance Surface Protection Film

Madico's CL 400 HPF is designed to provide maximum surface protection for glass surfaces at an economical price point. CL 400 HPF offers optical clarity with 99% ultraviolet protection and 89% visible light transmission. This film is highly effective at protecting flat and radius surfaces from damage over time and can be readily replaced in the field. The materials used in the construction are environmentally friendly, compliant to EU RoHS regulations, REACH regulations and meets reaction to fire requirements according to EN 45545.

#### Material Construction:

- Scratch resistant coating
  - Polyester PET
  - Pressure sensitive adhesive
  - Release Liner
  - Total film thickness of 4.5 mil
- All thicknesses are based on nominal data.*



#### Film Characteristics:

- $\geq 99\%$  UV Rejection
- Coating abrasion resistance:  $\leq 1.5\%$  Delta Haze
- Peel strength: 3.5 - 4.5 pounds per inch
- Pencil hardness:  $\geq 4H$
- EN 45545 compliant for interior and exterior surfaces

#### Applications:

- Interior/exterior transit vehicles
- Transportation depots and platforms
- Point-of-sale kiosks and ATM machines
- Touch screens
- Electronic information displays
- Transactional devices
- Mobile data systems

#### Benefits:

- Minimizes repair and replacement costs
- Anti-spall for increased safety and security
- Field replaceable
- Economical protection



## CL-400-HPF

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### Technical Performance

#### Film Characteristics

##### Total Solar Energy

Transmitted.....	81%
Reflected.....	9%
Absorbed.....	10%

##### Visible Light

Transmitted.....	89%
Reflected.....	10%
Absorbed.....	1%

##### Ultraviolet Light

Transmitted.....	<1%
Rejected.....	≥ 99%

#### Test Method

ANSI/NFRC 100,200

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#### Physical Properties

Film Thickness.....	0.0045 inch	
Structural Component.....	0.004 inch	
Tensile Strength.....	32,000 PSI average (MD/TD)	ASTM D - 882
Break Strength.....	100 pounds per inch (width)	ASTM D - 882
Adhesive Type.....	Acrylic pressure sensitive	
Peel Strength.....	3.5 to 4.5 pounds per inch	ASTM D - 3330
Abrasion Resistance.....	≤1.5% Delta Haze	ASTM D - 1044
Base Film Type.....	Polyester (PET)	
Pencil Hardness.....	≥4H	
Reaction to Fire Certification.....	Interior and Exterior Compliant	EN 45545

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.

#### Chemical and Stain Resistance:

Chemical resistance: Alcohol, aldehydes, hydrocarbons, chlorinated solvents, diluted acids, and alkalines.

Stain resistance: Resistant to most food, chemical and medicinal staining agents.

