

3M Advanced Light Control Film with adhesive (ALCF-PA)

Preliminary Data Sheet

August 8th, 2011

Description 3M™ Advanced Light Control Film with adhesive (ALCF-PA) product restricts visibility of an ATM or Kiosk at wide angles by limiting the angle with which light may pass through the filter, enabling privacy to the user.

Applications 3M ALCF-PA construction consists of a glossy hard coated PC with micro-replicated louvers and a thick optically clear adhesive for ease of lamination to the back of a touch panel. It has a clear protective pre-mask on both sides of the product to protect it during handling and lamination. This solution will help meet the need of a cost effective PSA privacy filter solution to replace autoclave glass constructions.

Typical Properties Technical information provided consists of typical developmental product data and should not be used for specification purposes. Unless otherwise noted, all tests are performed at room temperature.

Property	Typical Value US units (metric)
View Angle	30 degrees +/- 2 degrees
Nominal UV Transmission	5%- 7% average from 280 nm – 380 nm
Haze	≤ 8%
Clarity	≥ 90%
Nominal thickness (with adhesive)	19.5 mils +/- 2 mils
Adhesion Peel Force (to glass)	98 oz/in (107 N/100 mm)
Heat resistance	85 ⁰ C for 1,000 hours
Cold resistance	-40 ⁰ C for 1,000 hours
Humidity resistance	65 ⁰ C/90% RH for 1,000 hours
Thermal shock resistance	85 ⁰ C for 1 hour to -40 ⁰ C for 1 hour, 100 cycles
Long Dwell Cycle Test	9 day test (3 day cycles and check samples): 1hr ramp 70C/95%RH hold for 22 hrs, 1hr ramp 35C/75%RH hold for 21 hrs, 30 min ramp 35C/25%RH hold 30 min, 1 hr ramp -30C hold 22 hrs, 1 hr ramp at 25C, ambient hold 1 hr

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Product Features

- Cost effective construction to replace autoclave glass processing
- 5 mil 3M optically clear adhesive for improved lamination
- Micro-replicated louver construction for uniform viewing and consistent privacy cut off
- UV blocking protection
- Hard coated glossy surface with clear pre-mask

Shelf Life & Storage (prior to application)

Material should be stored in its original packaging, laying in a horizontal orientation, away from direct sunlight. Heavy objects should not be piled on top of it to avoid damaging the product. Ambient temperature and humidity should be controlled to 10-30° C at 30-60% relative humidity.

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