

# Visgard® Premium LTF-300 Advanced Permanent Anti-fog Coated Polyester Film

## Target of Development

- Item** Permanent Anti-fog Adhesive backed PET film for Automotive Interiors
- Effect** ① Improved visibility for driver and passengers ② Improved shatter resistance of windows
- Purpose** ① Excellent hydrophilic permanent anti-fog performance ② Excellent optical clarity  
③ Good abrasion resistance ④ Enhanced condensation control

## Features

Visgard LTF-300 is a washable, scratch-resistant, permanent anti-fog film for automotive interiors.



Safety	Performance	Other
<ul style="list-style-type: none"> <li>Optically clear, enabling safer driver and navigation</li> <li>Eliminating steam on windows during hot and humid summer temperatures and frost and fog during cold winter months to enhance visibility</li> <li>PET film acts as a net to trap and contain shattered glass fragments</li> </ul>	<ul style="list-style-type: none"> <li>Anti-fog : passes EN166N</li> <li>Abrasion resistance: 2H pencil hardness, steel wool resistance ,passes EN166K (falling sand)</li> <li>UV resistance: passes EN166UV</li> <li>Chemical Resistance: acetone, ammonium hydroxide, diacetone alcohol, ethanol, ethyl acetate, gasoline, glycol ethers/esters, hexane, isopropanol, methanol, MEK, toluene</li> </ul>	<ul style="list-style-type: none"> <li>Application process same as applying window tint film to an automobile</li> <li>Can be applied to Glass, Polycarbonate, Acrylic and other Plastic Surfaces</li> <li>Durable after repeated cleaning with household cleaning agents and soft touch cloth.</li> <li>Printable surface</li> </ul>

Adhesive Bond Strength	
Polyken Probe Tack (0.5 sec dwell, 0.5cm/sec)	650 grams
Peel Adhesion(PSTC-101): 15 min dwell 24 hr dwell	2.7 lbs./in 3.8 lbs./in
Shear Adhesion(PSTC-107): 1/2in X 1/2in X 500g	40+ hours

Physical Characteristics	
Appearance	Crystal clear and colorless. The removable masking also clear and must be removed.
Visible Light Transmission	90%
Heat Tolerance	300°F (148.8°C)
Minimum Application Temperature	30°F (-1°C)

Anti-scratch	ΔHaze	
	100Cycles	500Cycles
Uncoated	20%(approx.)	66%(approx.)
Visgard LTF-300	5.6%	25.5%

Taber Test (Polyester substrate, CS10F wheel and 500g load, ASTM D1044)

Anti-scratch	ΔHaze
Uncoated	30%(approx.)
Visgard LTF-300	1.49%

Falling Sand Test (ASTM D968, 3kg standard Ottawa sand)

The contents of this document are based on currently available information and data, no warranty is provided for the listed data and evaluation.

### Issue & Solution

Issue : Film durability for specific automotive application  
Solution : To conduct durability study by applying film on the intended use over a period of time for evaluation

### Application

Automotive Windows (interior), Automotive Car Gauges, Automotive Heads Up Display