## Conventional Series by V-KOOL® Applications

## SAFETY & SECURITY FILM

**V-KOOL®** Conventional L-Series Safety & Security Film is a unique product where increasing production of float glass each year, it is evident that glass continues to be an integral part of contemporary architecture. As glass usage in buildings increases, and due to the inherent vulnerability of glass as a material, the need for a solution toward accidental and deliberate threats to safety and security becomes more pressing.

Causes of the hazards due to glass breakage range from natural calamities such as earthquakes & hurricanes to man-made or deliberate actions such as burglary, smash and grab crimes and terrorism. V-KOOL® Conventional L-Series Safety & Security Film works as a heavy-gauge, multi-layered clear polyester film (many times thicker than normal solar films) that is applied onto existing glass utilizing special formulated adhesives. The bond created by these super-aggressive cross-linking adhesives minimizes the chances of glass that has been broken or shattered from being propelled at high speeds into interior areas, or falling to sidewalks below the window.



In forced entry scenarios, glass applied with V-KOOL® Conventional L-Series Safety & Security Film enables a measure of resistance to penetration allowing for a period of time long enough to allow other security measures to sense and respond to the attack; successfully thwarting "smash and grab" burglaries and reducing the probability of a quiet and successful break-in.

Typical applications of **V-KOOL®** Conventional L-Series Safety & Security Film are retail shopfronts, skylights, galleries, museums, banks, military, transportation installations and other high-risk facilities or structures. **V-KOOL®** Conventional L-Series Safety & Security Film complies with ANSI Z97-1 Unlimited (Section 5.1) when applied to nominal annealed or tempered glass.

## Typical Optical Performance

	L4-mil	L8-mil
Visible Light Transmission	85%	81%
Visible Light Reflectance	13%	12%
Ultra-Violet Rejection	99%	99%
Shading Coefficient	0.96	0.92
Total Solar Transmission	78%	76%
Total Solar Reflectance	4%	11%
Total Solar Absorption	18%	13%
Total Solar Energy Rejection	17%	20%
Emissivity	0.88	0.80