

# DuPont Glass Laminating Solutions

## ***UL 972 Testing for Burglary-Resistant Glazing Materials***

Underwriters Laboratory test standard UL 972 considers the ability of a laminated glass to resist burglary or forced entry. The test consists of dropping a 3.25-inch, 5-lb. (2.25-kg) steel ball through a designated vertical distance onto a sample measuring 24 in. by 24 in. (61 cm by 61cm). Vertical (drop) distance controls impact energy, and the temperature conditions are controlled to consider indoor versus outdoor glazing applications. Test requirements for a UL 972 listing are shown below:

<b>UL 972 Test Requirements -- Burglary-Resistant Glazing Material</b>			
<b>Tests</b>	<b>Impacts per Sample</b>	<b>Impact Energy</b>	<b>Temperature</b>
Multiple Impact	5	50 ft.-lbs.	70°F-80°F(21°C-27°C)
Outdoor Use*	5	40 ft.-lbs.	14°F (-10°C)
	5	40 ft.-lbs.	120°F (49°C)
Indoor Use*	5	50 ft.-lbs.	95°F (35°C)
	5	50 ft.-lbs.	55°F (13°C)
High-Energy Impact**	1	200 ft.-lbs.	70°F-80°F (21°C-27°C)

\* The steel ball shall not penetrate the laminate on any of the five impacts, on 9 of the 10 samples tested.

\*\* The steel ball shall not penetrate the laminate on any of the three samples tested.