

Polycarbonate for security and safety

PLASTICS IN
SECURITY
AND SAFETY

by Amit Israeli

Among plastic materials, polycarbonate is the best impact resistant engineering material. When thick enough, and in solid form, it turns out to be bullet resistant. Multi-wall polycarbonate is lightweight, translucent, cost effective and strong.

Advantages and applications

The characteristics of polycarbonate make it a logical application for storm protection. Polycarbonate sheets are used as an alternative to plywood and metal when a person needs to protect their property (mainly windows) against high winds and flying debris. In recent years some Southern states have been ravaged by storms and hurricanes and polycarbonate has become a viable solution for protection. They will withstand impact from flying debris and can be used season after season.

Polycarbonate multi-wall sheets are also used around the world for airport security. When privacy screens are necessary for security measures, polycarbonate panels have many advantages over other products. These panels will allow light in, but yet they are not transparent. An example would be a search booth where

you would need light, but also privacy. In case of an explosion, polycarbonate panels are again a great asset in stopping flying debris. Sheets will not shatter like glass. This lessens the chance of injury from shards of glass penetrating skin and clothing. Polycarbonate sheets can hinder biological hazards by being air and water resistant.

Polycarbonate is used in industries as a barrier/guard for mechanical machines for operator protection. This helps prevent injury from mechanical failures where there could be flying objects near the operator. Once again, its shatter resistant quality comes into play anytime flying objects are a concern.



Gallina's twin-wall Polycarb provides privacy and can protect confidential information. This product is used in airport screening, security centers and financial institutions as well as commercial stores.

Polycarbonate panels are used in gymnasiums, car washes and as garage doors around the country because it will not break or shatter in case of vandalism. During earthquakes and strong storms, flying glass is a major concern. The population growth in natural disaster areas (hurricane and earthquake regions) has put people in harms way. Today's structures in these areas have to incorporate safety features, and polycarbonate has all the qualities to fill this need.



OndaPlus Storm Panel (Florida and Miami Dade approval pending) is a twinwall corrugated sheet used for window and door protection during hurricane season.

Not only does polycarbonate material have many applications, but installing the material for these applications gives it yet another advantage. A 16 mm thick 4' x 6' multi-wall sheet weighs roughly 12 pounds. Its light weight makes it easier and safer to handle and store. ■

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Gallina RDC 16 mm Storm Panel (Florida approval #5723) for commercial businesses protects windows from strong winds and flying debris during hurricane season.



The Gallina 344 product is another example of polycarbonate used for security, privacy and noise reduction purposes.