# CARTALIS SECURITY FILMS





Feel SAFE at all times

**Designed to Prevent Glass from Splintering on impact** 

Garware Polyester Ltd. is the pioneer and leading manufacturer of Suncontrol Films for application in Buildings under the prominent brand 'Garware Suncontrol' and 'Global Window Films'. From the pioneers, Garware Polyester Ltd., the only manufacturer of Suncontrol Film across Asia, comes Garware Safety and Security Films.

# What are Safety & Security Films?

These are optically clear, transparent, high impact resistant Polyester Films, which once installed on glass, give additional strength to glass, reduce glare & prevent glass from splintering on impact. Typical thicknesses are 4 Mil (100 mic.) & 7 Mil (175 mic.)

#### **Features:**

- Shatter Resistant
- Blocks 99% harmful UV rays
- Scratch Resistant
- Total Solar Energy Rejection upto 15% (Rejects Solar Heat)
- Optically Clear
- Ignition Resistant

#### **Benefits:**

- Protects from flying glass splinters in case of high impact / terrorism / civil unrest / earth quakes / hurricanes / storms etc., providing high level of safety
- Provides protection against injury due to accidental collision of human with Glass Window
- Deters thieves
- In case of fire, flames will not expand across the film as these films are self-extinguishing when removed from direct flame
- Doesn't compromise on the light factor and ensures clear visibility

### 175 MIC SAFETY

**100 MIC SAFETY** 



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#### **100 MIC SAFETY**

175 MIC SAFETY

# **Applications:**

- Façade Glasses
- Glass Railings
- Shower Cubicles
- Staircase Glasses
- Showroom facia windows
- French windows
- Glass Doors & Windows

## Segments:

- Embassies
- Banks
- Shopping Malls
- Airports
- Government Buildings
- Hotels
- Hospitals
- ATMs
- Residential Complexes

PRODUCT SPECIFICATIONS		
MECHANICAL PROPERTIES	SAFETY 4 MIL	SAFETY 7 MIL
Thickness	4 Mil	7 Mil
Tensile Strength At Break (MD/TD)	>1900kg/cm2	>1900kg/cm2
Elongation At Break MD	>130%	>140%
Peel Strength	Above 2.500 kg/inch	Above 2.500 kg/inch
Impact Test BS6206 For Class 'B'	Passes	Passes
SOLAR PROPERTIES		
Visible Light Transmittance	90%	91%
Ultra Violet Transmittance	< 1%	< 1%
Shading Coefficient	0.98	0.98
Emissivity	0.89	0.88
U Factor (BTU/hr./sq.ft.)	1.12	1.12
Total Solar Energy Rejection	13%	15%

All Values are applied to 18 inch Clear Plate Glass. These are representative of actual production & may vary from batch to batch.

# **Garware Polyester Limited**

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**International Subsidiaries:** US & UK

Resident Sales Representatives: Russia, Malaysia, China, Middle East & Brazil