AMGARD® SAFETY SHIELDS

PLASKOLITE

# AMGARD® SCRATCH-RESISTANCE POLYCARBONATE SHEET

## ANTIMICROBIAL

AMGARD scratch-resistant polycarbonate sheet is formulated with silver ion antimicrobial technology that protects the sheet surface from microorganism growth and remains active for the entire life of the product. The proprietary coating provides enhanced abrasion resistance to polycarbonate's inherent performance benefits of impact strength and clarity. The scratch resistant coating also adds exceptional resistance to common disinfecting cleaning chemicals. The result is a highly durable and tough antimicrobial sheet that can stand up to today's demanding safety barrier environments.

TUFFAK® AMGARD-SR sheet is offered with a five (5) year Limited Product Warranty against breakage. The terms of the warranty are available upon request.

- Inhibits microbe surface degradation
- Independent laboratory tested
- Abrasion resistant
- Chemical resistant
- Half the weight of glass
- Virtually unbreakable
- Easy to fabricate and clean

## APPLICATIONS

Durable protective barriers, office partitions, safety enclosures, interior windows and glazing

### Regulatory code compliance and certifications

CPSC 16 CFR 1201 Category I and Category II: Safety Standard for Architectural Glazing Materials

## Typical Properties*

| Property | Test Method | Units | Values |
|---|---|---|---|
| **PHYSICAL** | | | |
| Specific Gravity | ASTM D792 | – | 1.2 |
| Light Transmission, Clear @ 0.118" | ASTM D1003 | % | 88 |
| Taber Abrasion @ 100 Cycles, Delta Haze CS-10F Wheel @ 500 g load | ASTM D1044 | % | 4 |
| **MECHANICAL** | | | |
| Tensile Strength, Ultimate | ASTM D638 | psi | 9,500 |
| Tensile Strength, Yield | ASTM D638 | psi | 9,000 |
| Tensile Modulus | ASTM D638 | psi | 340,000 |
| Flexural Strength | ASTM D790 | psi | 13,500 |
| Flexural Modulus | ASTM D790 | psi | 345,000 |
| Compressive Strength | ASTM D695 | psi | 12,500 |
| Compressive Modulus | ASTM D695 | psi | 345,000 |
| **THERMAL** | | | |
| Coefficient of Thermal Expansion | ASTM D696 | in/in/°F | $3.75 \times 10^{-5}$ |
| Heat Deflection Temperature @ 264 psi | ASTM D648 | °F | 270 |
| Heat Deflection Temperature @ 66 psi | ASTM D648 | °F | 280 |
| **FLAMMABILITY** | | | |
| Ignition Temperature, Self | ASTM D1929 | °F | 1022 |
| Ignition Temperature, Flash | ASTM D1929 | °F | 824 |

*Typical properties are not intended for specification purposes

AMGARD SR is formulated with silver ion antimicrobial technology to protect the sheet's surface. It is not designed to prevent the transmission of any disease or infectious agent.

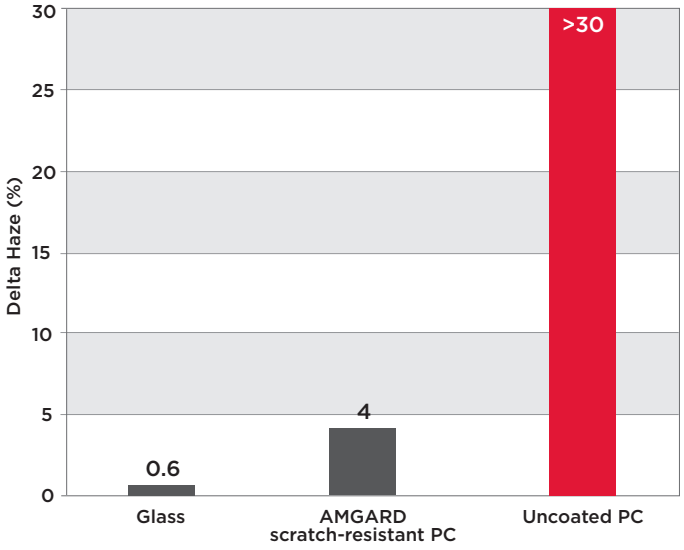
# AMGARD® SCRATCH-RESISTANCE POLYCARBONATE SHEET

## AMGARD SOLVENT RESISTANCE

| | |
|---|---|
| Acetone | No change to sheet |
| Ethyl acetate | No change to sheet |
| Toluene | No change to sheet |
| Amyl acetate | No change to sheet |
| Hydrogen peroxide (3%) | No change to sheet |
| Ethanol (100%) | No change to sheet |
| Isopropyl alcohol (99%) | No change to sheet |

16 hour "watch glass" covered surface exposure,
CSA B45.5 / IAPMO Z124, clause 5.15

### Abrasion Resistance*




*Taber Abrasion per ASTM D 1044, 100 cycles using CS-10F wheels at 500 g load

## AMGARD CLEANING / RUBBING RESISTANCE

| | Coating Appearance | |
|---|---|---|
| **Cleaner** | **Microfiber Cloth** | **Paper Towel** |
| Clorox® Splashless® Bleach | No change to sheet | No change to sheet |
| Clorox® Plus Tilex® Mold & Mildew Remover | No change to sheet | No change to sheet |
| CLR® Bath & Kitchen Foaming Action Cleaner | No change to sheet | No change to sheet |
| Fantastik® Disinfectant Multi-Purpose Cleaner | No change to sheet | No change to sheet |
| Lysol® Power Bathroom Cleaner | No change to sheet | No change to sheet |
| Mean Green® Super Strength Cleaner & Degreaser | No change to sheet | No change to sheet |
| Scrubbing Bubbles® Mega Shower Foamer | No change to sheet | No change to sheet |
| Scrubbing Bubbles® Foaming bleach | No change to sheet | No change to sheet |
| Simple Green® All-Purpose Cleaner | No change to sheet | No change to sheet |
| Windex® | No change to sheet | No change to sheet |

Taber linear abraser, 900 cycle, 600 gram load; Microfiber or Paper Towel saturated with cleaner

Solvent and cleanser resistance applies to coated sheet surface only. Care must be taken to not expose uncoated sheet edges to harsh chemicals and cleaners. Do not use scrapers, squeegees, razors or other sharp instruments that may scratch through the coating.



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