



PHYSICAL + CHEMICAL PROPERTIES

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| Form: | Sheet |
| Material: | Solid Polycarbonate (High-Heat Engineering Thermoplastic) |
| Odor: | Odorless |
| Thickness: | 1/4 inch (6mm) |
| pH Value: | Not applicable |
| Boiling Point (°C): | Not applicable |
| Explosive Properties: | Not explosive |
| Oxidizing Properties : | Not oxidizing |
| Vapor Pressure (mm Hg) : | Not applicable |
| Vapor Density (air =1) : | Not applicable |
| Specific Gravity (water =1) : | 1.19 |
| Solubility in Water : | Insoluble |
| Partition Coefficient : | Not applicable |
| Decomposition Temperature (°C) : | Will not decompose below 200°C |
| Freezing Point (°C) : | Not applicable |
| Heat Resistance: | Continuous Use: 239-257°F Softening Point (Tg): 293-302°F |
| Viscosity (dynamic) : | Not applicable |

APPLICATION

VERTICAL, INDOOR APPLICATION ONLY.

Not approved for flooring, load bearing or outdoor applications.

Engineered to replace EPVC panels specifically in heat-exposure zones. Recommended for installations where countertop

appliances generate localized heat, including:

- Air fryers
- Toaster ovens
- Countertop convection ovens
- Coffee makers
- Electric griddles

Interior Ceramic Tile Substitute complying with the following:

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|------------------|--|
| Type | Mold and mildew resistant Solid polycarbonate |
| Thickness | Nominal 1/4 inch (6mm) |
| Finished Coating | Polyurethane Enamel |
| Board Size | Various depending on application |

Meets HUD Code Section 3280.202 with subsection 3280.203
Flame spread limitations and fire protection requirements

STABILITY + REACTIVITY

Stability: No decomposition if stored and applied as directed

Incompatibility with other materials: None reasonably foreseeable

Hazardous Polymerization: No hazardous reactions known

Hazardous Decomposition Product(s): In case of thermal decomposition, combustible vapors are formed, which are irritating to eyes and respiratory system, mainly consisting of: methyl methacrylate

Condition to avoid: This product is chemically stable

EC Classification: Under the classification, Packaging and Labeling of Dangerous Substances Regs, 1984, this material is not dangerous for supply or conveyance.

Impact Resistance: Extremely high. Significantly stronger and more durable than EPVC.

Heat Resistance: Will not warp, bow, or blister under typical air fryer exhaust (122-194°F). Continuous use: 239-257°F; Softening point (Tg) 293-302°F.

Water Absorption: <0.2% Ideal for kitchen backsplash environments

Service life: Long-term dimensional stability under repeated heat cycles. Resistant to cracking, chipping and brittleness.

SUSTAINABILITY

Six3Tile and all its components are sourced from the contiguous 48 states and manufactured in Lancaster, SC

Six3Tile's main substrates are free of formaldehyde, asbestos, lindane, PCG, PCP, CFCs, cadmium and lead and do not contain any monomers, biocides, heavy metals, or harmful plasticizers.

Six3Tile partners with some of the largest US suppliers to ensure high-quality, sustainable products that meet tight quality standards required to run in our facility.

For the specific products manufactured for Six3Tile, the product is non-photochemically reactive and does emit low-VOCs that meet state regulations during the manufacturing process. Six3Tile has not conducted 3rd party testing to date to quantify VOCs on its final products.



| TEST | TEST STANDARD | RESULT |
|---------------------------------------|---------------|----------------|
| Pencil Hardness | ASTM D3363 | 5H |
| UV Resistance | UL 746C | Passes, F2 |
| Weatherability | UL 746 C | Passes, F2 |
| Flammability + Electrical Performance | UL 746 C | Passes, F2 |
| Flammability Classification | UL 94HB | Meets Standard |

INSTALLATION NOTES

- Maintain 1/16" expansion gap at all edges
- Brace panels 2-6 hours during cure
- Allow 24 hours before appliance heat exposure
- Seal perimeter with flexible caulk

Approved Adhesives (Drywall Substrates)

Primary: Loctite® PL Premium Fast Grab (Polyurethane)

Alternate: OSI® Quad Max (Hybrid MS Polymer)

Perimeter Sealant: Quad Max or 100% Silicone

Do NOT use solvent-based adhesives, contact cements, epoxies, or spray adhesives.

ADHESIVE APPLICATION PATTERNS

Adhesive Pads ("Dabs"): Small, evenly spaced dollops every 6-8 inches.

- Provides cushioning
- Allows thermal expansion
- Ideal for uneven drywall

Serpentine Beads: Continuous S-shaped lines spaced 3-4 inches apart.

- Provides wide coverage
- Maintains consistent bondline thickness (~1/8")

Why Polycarbonate, not EPVC in heat zones

EPVC softens at 181°F.

Appliance exhaust often exceeds this range, causing:

- Warping / bowing
- Glossy burn spots
- Blistering
- Adhesive failure
- Panel deformation

Polycarbonate remains stable up to 257°F continuous.

It is the correct, heat-tolerant solution for backsplash areas exposed to modern countertop appliances.

STORAGE + HANDLING

Store products in manufacturer's unopened packaging indoors bearing the brand name and manufacturer's identification until ready for installation.

Store materials on level supports off the ground, indoors and flat (or vertically supported) to prevent sagging. Cover loosely with waterproof material to prevent condensation from forming while protecting against weather, direct sunlight, UV exposure, surface contamination, and construction traffic. Handle materials carefully to avoid damage to edges and surfaces.