



TECHNICAL BULLETIN

SUBSTRATE COMPARISON GUIDE



STANDARD PRODUCTS (EXTRUDED PVC) VS. PREMIUM PRODUCTS (POLYCARBONATE)

A practical comparison to ensure performance, durability & heat resistance for demanding installations.

STANDARD PRODUCTS – EXTRUDED PVC

A lightweight, closed-cell PVC substrate designed for easy fabrication, moisture resistance, and smooth surface finishing. Ideal for normal indoor environments where temperatures and everyday impacts are within typical residential and/or light-commercial ranges.

PREMIUM PRODUCTS – POLYCARBONATE

A high-performance solid thermoplastic engineered for extreme durability, structural stability, and superior heat and impact resistance. Built for high-demand kitchen zones, including behind and around the stove, where higher heat and frequent use are expected.

SIDE-BY-SIDE COMPARISON

CATEGORY	STANDARD PRODUCTS (Extruded PVC)	PREMIUM PRODUCTS (Polycarbonate)
MATERIAL TYPE	Extruded Polyvinyl Chloride (EPVC)	Solid, high-strength polycarbonate
DENSITY/WEIGHT	Lightweight, durable	Heavier, high density
RIGIDITY	Rigid but can flex or bow over spans	Very rigid, maintains shape under load
IMPACT STRENGTH	Moderate; can dent or crush under force	Extremely high; virtually unbreakable
HEAT RESISTANCE	~181°F before softening or warping. Keep 6" away from heat sources: Visit six3tile.com/heat	~250°F before softening Excellent thermal stability
STOVE COMPATIBILITY	Stove with upright backs Not for use along stove sidewalls	Stove with upright backs, flat top stoves Behind + along stoves
MOISTURE RESISTANCE	Excellent	Excellent
DURABILITY	Suitable for everyday residential/light commercial environments	Built for high-stress, high-impact environments
CHEMICAL RESISTANCE	Good; resistant to non-abrasive cleaners	Very good; withstands harsher chemicals
FABRICATION	Cuts, routs, shapes easily; very tool-friendly	Can be cut and machined but requires proper speeds to prevent melting