

Expanded PVC

Lightweight, durable, moderately expanded closed cell sheet material



Expanded PVC (expanded polyvinyl chloride) is a lightweight, yet rigid, expanded foam polyvinyl chloride. It is tough and versatile for many visual merchandising and signage applications. Expanded PVC, available in a wide variety of colors, is a good substrate for digital and screen printing, painting, laminating, vinyl lettering, and forming projects.

Expanded PVC Material Options

Celtec® 700 and 550 – offer a combination of features making them ideal for commercial signage and other applications. Sheets are tough, high strength and lightweight, and can be ordered in a wide range of sizes, thicknesses and colors. Celtec® 700 expanded PVC sheets are free of lead, cadmium, barium and zinc and have passed all three UL 1975 requirements. Celtec® 550 is perfect for outdoor house trim applications such as soffits, fascias, battens and door pilasters. For indoor house finishing applications, Celtec® 550 is ideally suited for all window trim, door jambs and stops, sills, sashes, crown molding, baseboard, chair rail and more. It can also be used to fabricate complete assemblies such as kitchen wall and base cabinets, vanities, doors and windows.

Sintra® – is lightweight yet rigid, durable, chemically resistant, and offers superior dent and scratch resistance with a low-gloss matte finish. Sintra® is easily formed into just about any shape using wood and foam board fabrication techniques. It is self extinguishing, UL 94 V-0, UL 94 5-V, and Class 1 or Class A (ASTM E84) in gauges of 3mm or less. Sintra® is perfect for POP displays, exhibits, kiosks, framing, and interior and exterior signage. It can be digitally and screen printed, painted, saw cut, routed, die cut, and mounted utilizing cold mounting techniques.

Wood Replacement – C-TEK® Rideboard™ – is a variation of foamed board with added density and stability. It can be cut, machined, nailed, glued, and screwed just like wood. C-TEK® Rideboard™ is manufactured using a combination of expanded PVC and wood flour. This combination offers greater stability and a denser composition to the PVC sheet which provides for greater “pull-out” strength when using fasteners. A wood-grain emboss can be added, please contact us.

Assembly & Bonds – Expanded PVC has excellent fastening characteristics such as superior screw & staple retention, making it easy to work with. Use Plexus® MA300, a fast-setting methacrylate adhesive, to create stronger bonds than the Expanded PVC itself.

Expanded PVC is widely used for:

- Printable—digital and screen
- Signage, point-of-purchase (POP) displays
- Exhibits and kiosks
- Photo mounting
- Display boards
- Wood replacement
- Prototypes
- Shelves and fixtures

Performance characteristics:

- Rigid, lightweight but durable
- Easy to machine, fabricate, and thermoform
- Die-cuttable
- Moisture resistant
- Accepts inks, paints, and pressure sensitive adhesive (PSA) materials
- UL 94 V-O

Common brands:

- Celtec®
- Sintra®
- InteCel®

Available in:



Sheet

Did You Know?

Expanded PVC can be sawed, drilled, bent, edge finished, and fabricated using ordinary tools

TYPICAL PROPERTIES OF EXPANDED PVC

TYPICAL PHYSICAL PROPERTIES*	UNITS	ASTM Test	CELTEC®
Physical			
Density	g/cm ³	D792	0.58
Water absorption	%	D570	0.15 - 0.30
Hunter whiteness index			85
Surface energy	Dyne		38
Hardness	Shore D	D2240	55
Mechanical			
Tensile strength	psi	D638	1,975 - 2,900
Flexural strength	psi	D790	3,755
Flexural modulus	psi	D790	165,000
Screw hold	psi	D1761	17.0 - 300
Izod impact	ft-lb/in	D256	0.69
Thermal			
Heat deflection temp (264 psi)	°F	D648	181
Coefficient of linear expansion	in/in/°F	D696	2.3 X 10 ⁻⁵
Vicat softening point	°F	D1525	168
Thermal resistance R (0.5" thick)	R	C518	0.948
Flammability Ratings			
Flame spread index		E84	Class A
Vertical burn test		UL 94	V-0
Fire foam test		UL 1975	Passed / Classified
Oil canning (@140)	°F	D648	Passed
Electrical			
Dielectric strength	kV/cm	D194	72
Compliances			
			FDA, RoHS

* Information applies to 3 mm - 12 mm material

Values may vary according to brand name. Please ask your Curbell Plastics representative for more specific information about an individual brand.