CNCGLASS
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PET Foam Core

CNCGLASS PET foam core is a polyethylene terephthalate structural foam for sandwich panels. The PET matrix gives the core a useful balance of mechanical properties, so it can be used in construction, road transport, aviation, marine, and wind-energy sandwich structures, among other typical applications.

The foam has strong fatigue resistance and can be used with a wide range of resins and molding processes. It withstands the high cure temperatures that occur during molding. Sheet sizes and further machining can be arranged to suit the part, including custom property targets where needed.

Product Photographs



Scored PET foam core sheet

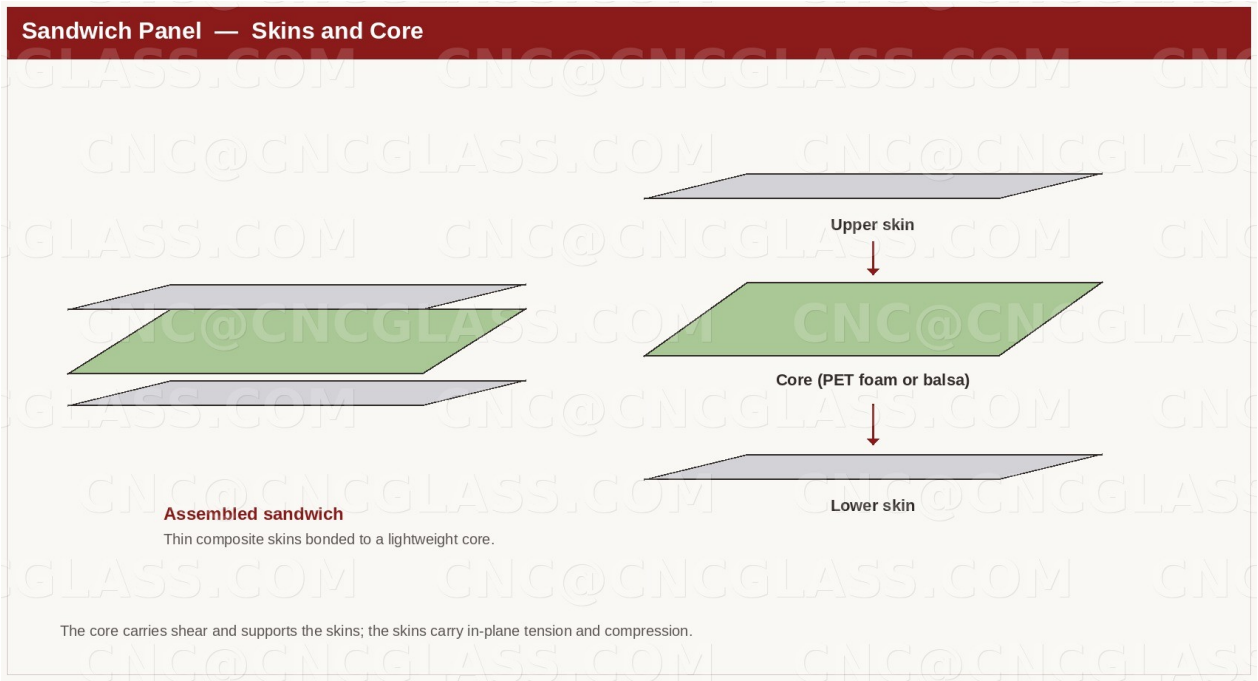


Contoured PET foam core, grid detail

Features

- Convenient processing: complex shapes can be thermoformed, and the foam remains thermally stable while it is heated.
- Good mechanical properties: high shear and compression performance, with excellent fatigue resistance.
- Strong resin compatibility, with excellent chemical stability against common laminating resins.
- Offcuts, shavings, and recovered product can be reprocessed.
- About 150 °C for a short time during processing, and about 100 °C for long-term service.

Process Schematic



PET foam is used as the lightweight core between composite skins in a sandwich panel.

Properties by Density Grade

Grades are listed by nominal mean density. Density cells show the mean and the range; strength, modulus, and elongation cells show the mean and the minimum.

Property	Standard	Unit	80 kg/m³	100 kg/m³	115 kg/m³	200 kg/m³	250 kg/m³
Density	ISO 845	kg/m³	Mean 80 Range 75–90	Mean 100 Range 95–105	Mean 115 Range 110–120	Mean 200 Range 185–210	Mean 250 Range 235–260
Compression strength	ISO 844	MPa	Mean 1.10 Min 0.85	Mean 1.60 Min 1.30	Mean 1.85 Min 1.55	Mean 3.9 Min 3.3	Mean 5.1 Min 4.5
Compression modulus	ISO 844	MPa	Mean 80 Min 65	Mean 90 Min 70	Mean 110 Min 90	Mean 200 Min 160	Mean 260 Min 200
Tensile strength	ASTM C297	MPa	Mean 1.55 Min 1.25	Mean 1.8 Min 1.3	Mean 2.0 Min 1.5	Mean 2.5 Min 2.0	Mean 3.0 Min 2.5
Tensile modulus	ASTM C297	MPa	Mean 95 Min 85	Mean 110 Min 90	Mean 130 Min 110	Mean 220 Min 180	Mean 260 Min 200
Shear strength	ASTM C273	MPa	Mean 0.75 Min 0.65	Mean 0.85 Min 0.7	Mean 1.0 Min 0.85	Mean 1.95 Min 1.6	Mean 2.2 Min 1.7
Shear modulus	ASTM C273	MPa	Mean 20 Min 16	Mean 27 Min 22	Mean 31 Min 26	Mean 65 Min 55	Mean 85 Min 75
Shear breaking elongation	ASTM C273	%	Mean 26 Min 16	Mean 17 Min 10	Mean 14 Min 8	Mean 7 Min 4	Mean 6 Min 3

Commercial Notes

This catalog does not list prices. Please contact cnc@cncglass.com for current pricing, available widths, cut sizes, and supply terms.

Contact Us

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We welcome inquiries on grades, roll sizes, and process-matching advice.