

Foam Glass for Buildings

Re-melting glass is an energy-intensive process requiring extremely high temperatures. To give the building industry a greener option, EWTCOI researchers worked with waste glass to produce **Foam Glass** prototypes with high, open porosity of 85-95%, low density, and high compressive strength. The eco-friendly formulation we used requires a temperature of 800°C, roughly half that required for re-melting glass.

The resulting prototypes have uniformly sized pores, low thermal conductivity and relatively high sound absorption. EWTCOI can customise the process to produce foam glass of various sizes and shapes.

EWTCOI can help you build a clear advantage in your building business.

Key Features & Benefits

- High porosity exceeding 90%
- Extremely lightweight, with density between 0.15-0.25 g/cm³
- Low thermal conductivity (0.067 W/m²K)
- High sound absorption coefficient (0.5)
- Compressive strength of 1-2 MPa
- High heat insulation
- Lightweight but sturdy
- Fire-proof
- Non-toxic
- Can be recycled indefinitely

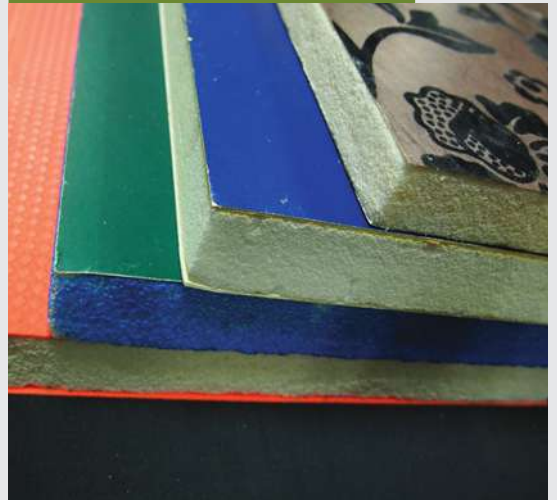
Applications

- Partition walls
- Ceiling boards

Used glass containers converted to green building material



Foam glass partition wall panels



Foam glass wall or floor tiles

