

MetaCORE-LD

Compared to solid, foam, and honeycomb cores

Strong and flexible

MetaCORE-LD is lightweight, but strong in all directions.

It flexes to absorb impact energy without breaking.

Same materials, different geometries

No increase in material costs.

New geometries allow for wires and ducts to run through gaps.

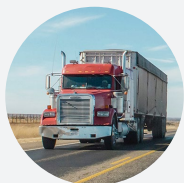
Applied research

Cutting-edge research and proprietary technology allow for customized geometries that provide different properties, e.g. stronger, lighter, stiffer.

	Solid	Foam	Honeycomb	MetaCORE-LD
Relative weight	10x	1x	1x	1x
Relative strength	40x	17x	1x	17x
Relative stiffness	3x	1x	2x	3x
Relative shear stiffness	130x	1x	4x	24x
Impact absorption	N/A	1x omnidirectional	3x unidirectional	5x omnidirectional
Thermal insulation (R-value)	0.3	3.6	2.1	8.0

12" x 12" x 1" polypropylene core with 0.016" aluminum skins

Potential applications



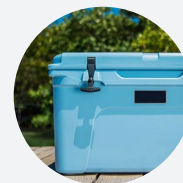
Trailer / container sidewalls

Saves weight, insulates, and provides better crash protection.



Wall insulation / siding

Weatherproof, fire resistant, and insulating in one installation step.



Premium coolers

Similar insulation and strength at a fraction of the cost.



Aerospace components

Lighter to save fuel; absorbs vibrations and stresses.



Military field shelters

Light, thin, load-bearing, waterproof, and insulating.