

## Lightweight sandwich panels

### Lighter, stronger, safer panels with ArmorLite

ArmorLite is outside-the-box thinking. Replacing decades-old sandwich panel technology with next-generation advanced materials, it harnesses the multi-functional capabilities of mechanical metamaterials.

### Applications

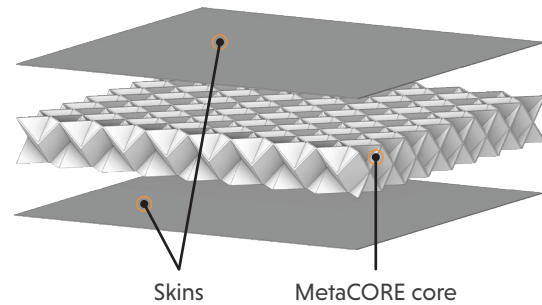
Lightweight, strong, with high stiffness and made with proven materials, ArmorLite is ideal for industrial applications including transportation, building materials, aerospace, and defense.

### Features

- Lightweight MetaCORE® core
- High shear strength
- Domestically-sourced raw materials
- Lowered embodied CO<sub>2</sub> across entire life cycle
- Recycled thermoplastic cores

### Benefits

- Improved freight efficiency
- Easy supply chain integration
- No costly chemical or molecular engineering
- A more sustainable panel solution
- Reliable manufacturing and repair methods

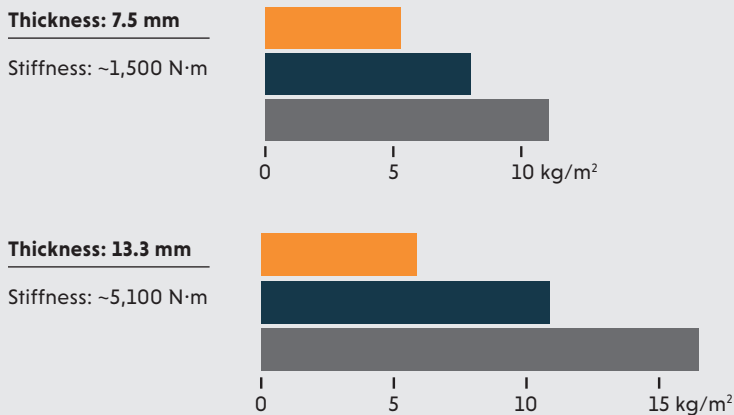


› Mechanical metamaterials, like MetaCORE, are a class of structured materials engineered with complex 3D patterns.

› Multiple beneficial attributes are attained through applying patented geometric designs to raw materials, like thermoplastics, metals, and composites.

### Lighter is better: Saving weight with ArmorLite

**ArmorLite 100**   **ArmorLite 500**   **Standard composite**



Product	Thickness	Stiffness-to-weight ratio
ArmorLite 100	7.5 mm	6.2
ArmorLite 500	7.5 mm	4.2
Standard composite	7.5 mm	3.0
ArmorLite 100	13.3 mm	18.3
ArmorLite 500	13.3 mm	10.2
Standard composite	13.3 mm	6.7
Steel sheet	4.3 mm	1.0
Aluminum sheet	6.0 mm	2.1