



The exterior windows and storefronts used in the Library Commons are made of fiberglass. They help reduce carbon in two ways - reducing the amount of energy needed to keep the building temperature comfortable, and they have less embodied carbon in their life-cycle, which includes harvesting of material, manufacturing, and recycling after use.

The windows high thermal performance is part of the overall exterior building envelope that helps them keep the interior temperature between 68-72 degrees for a greater percentage of the year, minimizing the amount of heating and cooling required (and energy consumed).

Pella® Fiberglass

Heavy-duty powder coat finish resists chalking and fading.

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Provides **outstanding resistance** to water, wind and outside noise.

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Resists dents, bends and breaks and delivers lasting **strength and durability**.

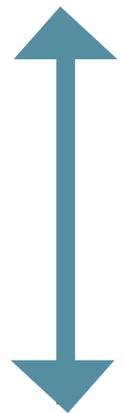
*Pella's proprietary fiberglass material has displayed superior strength over wood, vinyl, aluminum, wood/plastic composites and other fiberglass materials used by leading national brands in tensile and 3-point bend tests performed in accordance with ASTM D638 and D790 testing standards.



Comparison of Aluminum to Fiberglass

Material	Bulk Conductivity (W/mK)
Silver, Pure	418.0
Copper 11000	388.0
Aluminum 6061 T6	167.0
Zinc, Pure	112.2
Iron, Cast	55.0
Solder, 60% Tin	50.0
Titanium	15.6
ThermalGrease,T660	0.90
Fiberglass	0.040
Air, stp	0.025

WORSE
very conductivity
(highest transfer of heat and cold)



BETTER
very low conductivity
(highest transfer of heat and cold)

What is fiberglass?

Fiberglass is made from strands of glass fibers. Final products like the window frames are made by running the stands through process equipment that impregnates the fibers with resins and pulls it through an extruder to create the shape desired. When cured, the extruded shapes can be cut to size for assembly.

Although it is sometimes more challenging than metal products, there are ways to recycle fiberglass, with technologies improving all the time.