

DIAGNOSTIC IMAGING COMPONENTS



Vermont Composites has established partnerships with imaging manufacturers in areas of computed tomography (CT), nuclear medicine, angiography, SPECT, PET, MRI, urology, bone densitometry, and radiography.

The use of carbon fiber in diagnostic imaging components is widespread due to the exceptional radiolucent properties of this material. Compared to other traditional materials, carbon fiber structures provide strength, stiffness, fatigue and clinical-chemical resistance – all coupled with high x-ray transmission. As an industry leader in the design and manufacture of composite components, Vermont Composites is committed to provide high quality tabletops, headholders and accessories to meet the demands of today's cost-competitive healthcare environment.

- Medical x-ray tabletops and accessories.
- Low x-ray absorption - low patient exposure/enhanced image contrast.
- High structural stiffness; minimal deflection.
- Choice of materials to accommodate different system requirements – carbon/epoxy, glass fiber/epoxy or decorative laminate over foam core. Surface finishes available are paint, high pressure laminate or natural carbon fiber.
- Custom designed and manufactured to strict dimensional tolerances.



Vermont Composites, Inc. offers a full line of services from design and analysis to prototyping and production. Serving a wide range of industries, Vermont Composites supplies high performance composite parts for the medical, aerospace, electronic and industrial markets.



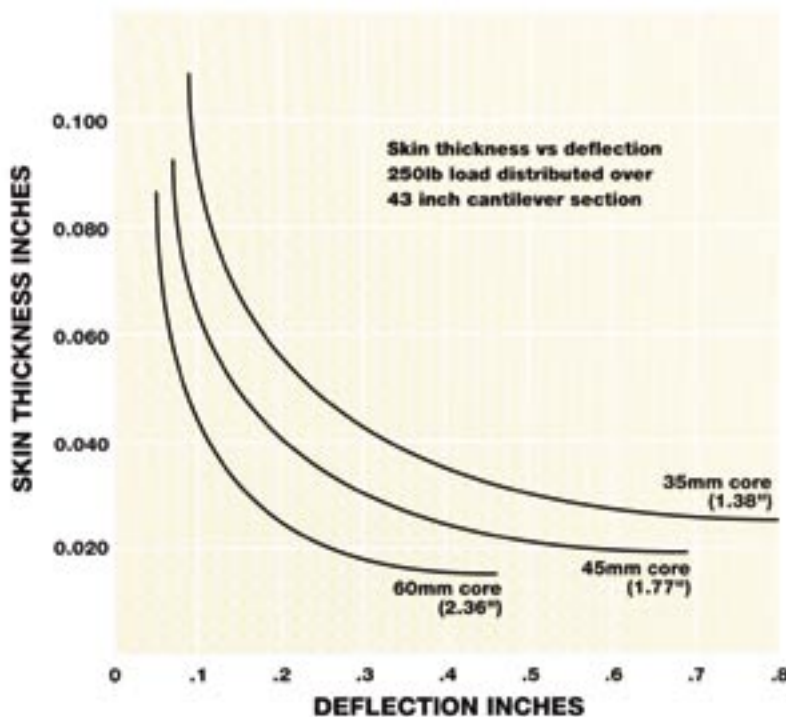
Vermont Composites, Inc. • 139 Shields Drive • Bennington, VT 05201
Tel: 802/442.9964 • Fax: 802/447.3642 • sales@vtcomposites.com • www.vtcomposites.com

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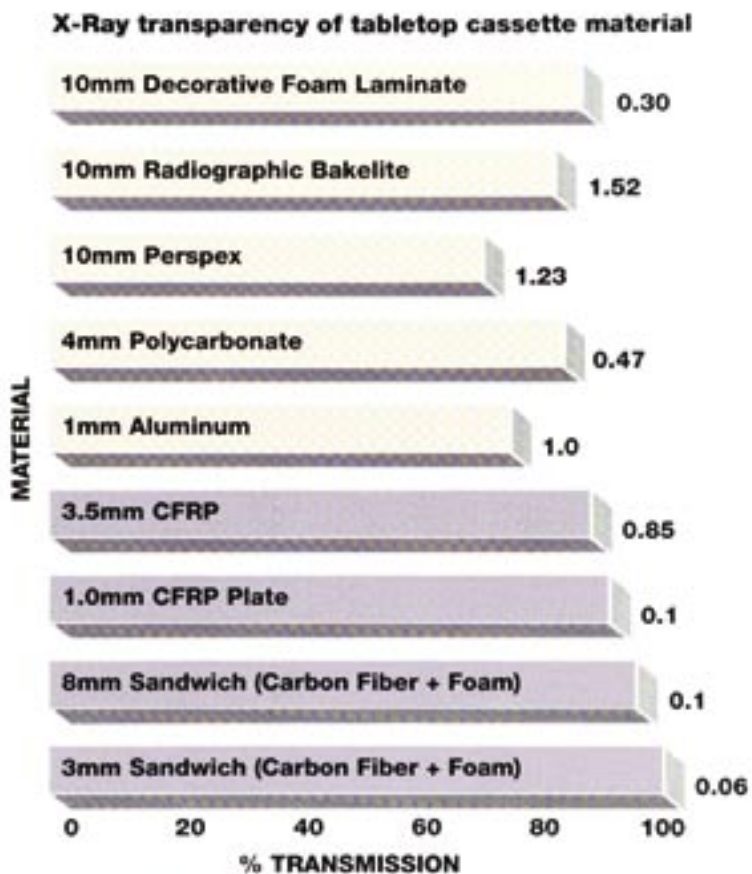


FM40073

Composite tables are designed and tested for a 300 lb. to 400 lb. patient with four times safety factor. Carbon/epoxy tabletops have typical tip deflection of less than 1" with a distributed 300 lb. load over a 40" - 50" cantilever. Tables incorporate a void and artifact free sandwich structure.



Graphical illustration of the change in deflection of a patient support couch with the change in carbon fiber skin thickness.



No Phantom (Primary Beam) 2.7mm AL HVL 100kVp 2.15mm Al total filter

Carbon fiber composite materials have higher transmission values than traditional materials, but for a true comparison it is necessary to take into effect differing thicknesses. This is referenced to 1mm thick aluminum and called aluminum equivalence. These values show the superior x-ray transmission of carbon fiber composites. For example, the 8mm carbon fiber/foam sandwich is 8 times thicker than 1mm aluminum but has ten times more transmission.