

design criteria

The Dakota Burl® and the BIOFIBER™ Wheat are panel products of variable thickness' and/or colors. Dakota Burl™ resembles the beauty of traditional burl wood. BIOFIBER™ Wheat offers a rich golden alternative to traditional panel products.

Dakota Burl™ and/or BIOFIBER™ Wheat should be specified for interior, non-structural uses only, in applications that avoid continuous and/or direct contact with moisture. These materials are not recommended for kitchen and/or bath countertop applications. Storage and handling instructions must be followed. All testing is performed to ASTM standards in Environ Biocomposites Mfg, LLC's laboratories as well as in our subcontracted external independent laboratories. (See Table 1 below)

span & support for horizontal applications

Dakota Burl® and the BIOFIBER™ Wheat meet M3 particleboard standards, which defines its design criteria.

balanced construction

Improper or unbalanced construction in fabricating Dakota Burl™ and/or BIOFIBER™ Wheat may cause warping or cupping. Finishes or seal coats are required on both sides of the product and edges for proper balance.

See the "General Finishing" section in this manual for further information.

building techniques

Dakota Burl™, and BIOFIBER™ Wheat, offer unique opportunities for showcasing edge building techniques. Each of the above materials can be glued directly to itself or to wood. As with wood, the use of mechanical fasteners will greatly enhance the performance of any joint. For examples and for further information on gluing see the "gluing" section in this manual.

fastening

Although Dakota Burl™ and BIOFIBER™ Wheat properties differ from wood products; they are designed to mimic the attributes of hardwood. Dakota Burl™ and BIOFIBER™ Wheat's uniform panel densities make fastening through the face or on edge similar to wood. Mechanical fasteners should always be used in conjunction with a recommended adhesive when edge building Dakota Burl™ and/or BIOFIBER™ Wheat to achieve the best quality and highest strength joint. When edge gluing Dakota Burl™ and/or BIOFIBER™ Wheat, it is recommended that biscuit, screwing, or dowel jointing techniques are followed.

inlays

Because Dakota Burl® and the BIOFIBER™ Wheat's three-dimensional properties, inlays can easily be fabricated. A router can be used to make various surface designs

and edge effects, which can be filled with colored wood filler, or colored polyester. Sanding and finishing the completed product provides a smooth interface between the Dakota Burl™ and/or BIOFIBER™ Wheat and the inlay.

machining

Equipment and tooling requirements for fabricating Dakota Burl™ and/or BIOFIBER™ Wheat are similar to those of hardwoods or high-density wood composites. Sharp carbide tooling is recommended for cutting, shaping and other machining techniques.

finishing

Dakota Burl™, and BIOFIBER™ Wheat are open-grained materials, a characteristic similar to wood. Dakota Burl™, and BIOFIBER™ Wheat must be finished to enhance the full natural color and to provide proper product performance.

humidity and water

Raw Dakota Burl™ and BIOFIBER™ Wheat are highly water-resistant and have similar humidity and water absorption of a hardwood, which allows for standard woodworking techniques.

Dakota Burl™ and/or BIOFIBER™ Wheat surfaces can be water impervious when finished properly. Linear expansion is similar to that of traditional hardwoods.