



INSTRUCTIONS

Aquacore™ Premium — WSC 6001

The ACM water-soluble mandrel material, Aquacore™ Premium, has been formulated with a minimum amount of water to enable it to be easily formed into complex shapes. Aquacore™ Premium comes ready to use, no additional water is needed for production.

If Aquacore™ Premium has notably separated; we recommend placing the product in a shallow trough or bucket and kneading it by hand until thoroughly mixed.

Aquacore™ Premium is porous and may need to be sealed. Aquaseal™, a water-soluble and thermally stable sealer, is recommended for sealing the mandrel. No special disposal procedures need to be followed for the washed mandrel material, as it is completely environmentally friendly. Aquacore™ Premium is compatible with the curing temperatures of all commercial pre-preg resins.

NOTE: Mix Aquacore™ Premium thoroughly before beginning Step 1

1. Form material into the desired shape by packing into a mold or shaping it by hand.
2. Remove material from mold.
3. Dry material in a convection oven at 125°C (257°F).
 - The material can also be dried at temperatures below 125°C (257°F). However, Aquacore™ Premium is very thermally stable and can withstand temperatures in excess of 195°C (383°F).
 - Drying times for Aquacore™ Premium vary according to part geometry and surface area. For example, a cylinder measuring 2 inches in diameter and 6 inches in length will require approximately 1.5 hours of drying time at 125°C (257°F) or approximately 2 hours at 95°C (203°F). Objects much larger in diameter are also dried at the same temperatures. Drying times will increase at approximately 1 hour per inch in diameter at 125°C (257°F) and at 1.5 hours per inch in diameter at 95°C (203°F).
 - To avoid cracking, we recommend turning the oven off with the mandrel inside and letting the mandrel cool in the oven. This prevents thermal shock.
4. Once dried, lay up composite material around Aquacore™ Premium and cure according to the specifications of the material.
5. After cure, simply wash with tap water to remove the mandrel particulate.

For additional assistance, please contact Advanced Ceramics Manufacturing at 520.547.0850.

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