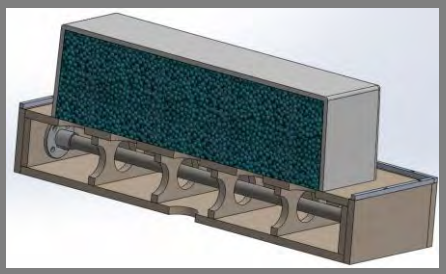
HYVAC® - LCM

Lightweight composite material for cut-sheet thermoforming

HYVAC-LCM is a new composite mold material that allows thermoformers to optimize material distribution, reduce/eliminate chill marks, reduce tool weight and simplify mold production. The product consists of a smooth syntactic outer shell easily formed over a porous inner core of composite beads. The porous core allows vacuum anywhere in the tool by drilling holes in the outer shell. The product is available in kit format allowing the user to machine a tool from a drawing model or to fill a negative cavity pattern for one-step processing.



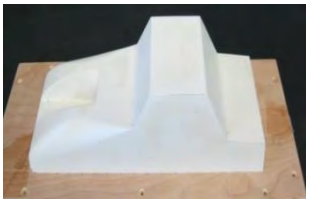
HYVAC-LCM offers the following outstanding attributes:

- Ultra low thermal conductivity
  - No chilling of sheet
  - Improved material distribution
- Long term stability
  - No swelling, cracking or distortion
- Durability
  - Fused shell and core provide high strength
- Lightweight
  - Reduced machine wear and tear
  - Easier handling for mold change
- Off-the-shelf availability
  - Rapid mold construction
  - Syntactic putty is stable at room temperature for extended periods of time, then cures overnight at 280°F
- Ease of use
  - Syntactic shell is easily drilled with no wear on drill bits
  - Beveled piano wire can be used as bit
  - Porous core eliminates the need for extensive air channel networks
- Service temperature suitable for use with all commonly formed plastics

HYVAC-LCM is sold in kit format. The kit contains 1 gallon of syntactic putty (enough to cover 300 in^2 with the recommended ¾" starting thickness) and 0.5 ft^3 kit (enough to make a 6" x 12" x 12" block) of reinforced, high temperature spheres, resin and catalyst to make the porous core.

Putty material and porous core material may also be ordered separately to more closely match your specific job requirements.

As a 2-stage machining process



Sample finished mold

CMT
Innovative Tooling **Materials** for Thermoforming

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