

HYTAC-LPX is a new epoxy syntactic plug assist material aimed at providing heavy gauge thermoformers with an economic solution that meets the demands of most large plug requirements.

HYTAC-LPX is available as a solid syntactic or as the outer layer of a two-part system consisting of a core of epoxy coated large, hollow composite spheres and an exterior of high-performance syntactic foam.

Low thermal conductivity and specific heat

The syntactic foam structure of HYTAC-LPX maintains the low thermal conductivity desired in a plug assist material.

Easily machined or formed

HYTAC-LPX may be cast to near net shape and/or machined using conventional equipment.

Applications

HYTAC-LPX now makes it possible for heavy gauge thermoforming applications to realize the same material distribution/sheet thickness reductions and energy savings as are expected in thin-gauge thermoforming.

Machining and Polishing Guides

HYTAC materials are generally easy to machine and polish. Following the CMT guidelines will improve surface quality and consistency in plug performance.

THERMOSET	
Color	Off-white
Density (p)	43-47 lb/ft ³ [688-752 kg/m ³]
Thermal Conductivity (k)	0.10 BTU/hr-ft ² -°F [0.17 W/m ² -K]
Coefficient of Thermal Expansion(CTE)	22 x 10 ⁻⁶ in/in/°F [41 x 10 ⁻⁶ m/m/°C]
Compressive Strength	8,530 psi [58.8 MPa]
Service Temperature	350°F [176° C]
Flexural Toughness (ASTM D790)	5.8 psi [39.9 kPa]

Custom Cast Service

HYTAC LPX is only available as a custom-cast solution. LPX can be used as mold or as a plug. It is fabricated as either a solid syntactic or as a 2-part system with a thick syntactic outer layer and a core of hollow composite spheres. As long as all dimensions are 16" or less, a solid casting will be used. Otherwise, a 2-part system will be used.

Dimensional Guidance

