

HYTAC® – W

Low thermal conductivity epoxy syntactic

The use of syntactic materials as plug assist tooling replacing conventional materials such as aluminum, wood, felt or Delrin has become increasingly popular in the thermoforming industry. Syntactics, the combination of hollow glass spheres in a polymer matrix, have many unique properties that make them ideal candidates for these applications.

- **Low Thermal Conductivity and Specific Heat**

This translates to lower heat transfer reducing warm-up time and virtually eliminating material sticking to the plug.

- **Dimensionally Stable**

The low coefficient of thermal expansion means the plug maintains its shape over a wide temperature range.

- **Excellent Temperature Resistance**

HYTAC-W is specially formulated with an epoxy resin that maintains a high modulus at elevated temperatures.

- **Lightweight**

This increases the life of capital equipment due to reduced wear and tear on moving parts.

- **Easily Machined**

HYTAC-W can be easily machined to any size or shape using conventional equipment.

- **Variety of Shapes and Sizes**

The material is provided in standard size rods or sheets and may be custom molded or custom cut to meet your specific needs.

Typical Properties

Color	White
Density (ρ)	41-45 lb/ft ³ [657-721 kg/m ³]
Thermal Conductivity (k)	0.065 BTU/hr-ft-°F [0.11 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	6,200 psi [42.7 Mpa]
Service Temperature	350°F [176°C]
Flexural Toughness (ASTM D790)	2.7 Psi [18.6 kPa]



Applications

HYTAC-W is often used for short run or price sensitive applications, providing cost effective, low thermal conductivity plugs for quick start up times, better material distribution, improved surface appearance and longer life than basic alternatives.

Commonly used with PE, PS and PVC.



Innovative Tooling Materials
for Thermoforming

CMT MATERIALS, Inc.
107 Frank Mossberg Drive
Attleboro, MA 02703
(508) 226-3901
Fax: (508) 226-3902
email: info@cmtmaterials.com

Available in rod, sheet and block sizes. For details:

www.cmtmaterials.com