

# Thermoplastic Syntactic Foam

HYTAC B1X combines the toughness of an engineered thermoplastic with the low thermal conductivity of syntactic foam. Suitable for use with nearly all plastics, it is an excellent choice for optimized material distribution and long plug life. It machines without dust and allows for machining of fine detail.

### Thermoforming applications

- PET
- PP
- PS
- PE
- PVC
- PLA

### Benefits

- Extremely high toughness and durability
- Machines without dust
- Widely suitable with nearly all plastics
- Excellent material distribution

### 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.

### THERMOPLASTIC

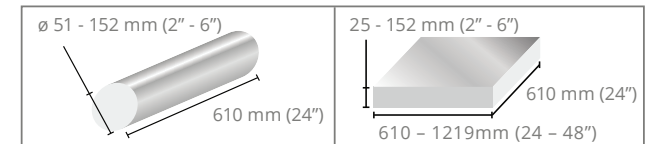
Material	B1X
Color	Light Blue
Density (ρ)	42-46lb/ft <sup>3</sup> [672-737 kg/m <sup>3</sup> ]
Thermal Conductivity (k)	0.11 BTU/hr-ft-°F [0.19 W/m <sup>2</sup> K]
Coefficient of Thermal Expansion(CTE)	37.6 x 10 <sup>-6</sup> in/in/°F [67.7 x 10 <sup>-6</sup> m/m/°C]
Compressive Strength	7,100 psi [49.2 Mpa]
Service Temperature	350°F [176°C]
Flexural Toughness (ASTM D790)	11.6 Psi [80.0 kPa]

### Custom Cut Service



Get your material custom cut!  
Contact CMT Materials for information and prices.

### Standard Dimensions (larger rod diameters available on request)



W / WF / WFT / FLX / FLXT / C1R: standard tolerances are +0%, -1.5% of thickness or diameter.  
B1X / XTL: standard tolerances are +0.187" (5mm), -0.0" (0mm) of thickness or diameter.