

## CMT Materials PROTOBLOCK Air Permeable Prototype Tooling Material

Category : Polymer , Thermoset , Epoxy

### Material Notes:

PROTOBLOCK is a new composite material made of inorganic granules and epoxy resin engineered to form a micro-porous structure for use as prototype vacuum form or thermoform tooling. The material is air-permeable over the entire surface allowing for unique design considerations for prototype tools. PROTOBLOCK is a cost effective alternative to other permeable materials when considering short duration runs. Advantages: High Definition and Accuracy, Improved Surface Quality, Trapped Air Elimination, Faster Air Evacuation, Reduced Machine Time, Improved Mold Detail. PROTOBLOCK may also be used in vacuum clamping divides. Even clamping is attained without the need for drilling. Since there are no drill holes or channels, even sensitive parts show no deformation. Static jam while ejecting can be eliminated using compressed air, which creates a smooth and even air cushion. Information Provided by CMT Materials, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_CMT-Materials-PROTOBLOCK-Air-Permeable-Prototype-Tooling-Material.php](http://www.lookpolymers.com/polymer_CMT-Materials-PROTOBLOCK-Air-Permeable-Prototype-Tooling-Material.php)

Physical Properties	Metric	English	Comments
Density	1.700 g/cc	0.06140 lb/in <sup>3</sup>	
Porosity	20 %	20 %	Total porosity (by volume)

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	80	80	
Flexural Strength	22.01 MPa	3192 psi	
Flexural Modulus	8.20 GPa	1190 ksi	
Impact	3.2	3.2	Unspecified Impact Strength Test (kJ/m <sup>2</sup> )

Thermal Properties	Metric	English	Comments
CTE, linear	25.2 - 28.8 µm/m-°C	14.0 - 16.0 µin/in-°F	
	@Temperature 25.0 - 125 °C	@Temperature 77.0 - 257 °F	
Thermal Conductivity	1.60 W/m-K	11.1 BTU-in/hr-ft <sup>2</sup> -°F	
	@Temperature 100 °C	@Temperature 212 °F	
Maximum Service Temperature, Air	65.6 °C	150 °F	Martens Dimensional Stability

Descriptive Properties	Value	Comments
Color	White	

## **Contact Songhan Plastic Technology Co.,Ltd.**

**Website : [www.lookpolymers.com](http://www.lookpolymers.com)**

**Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)**

**Tel : +86 021-51131842**

**Mobile : +86 13061808058**

**Skype : lookpolymers**

**Address : United North Road 215,Fengxian District, Shanghai City,China**