# TECH DATA SHEET **PEAM-645** $\int_{H_3C+C_{H_2}} \int_{CH_2} \int_{CH_2}$

#### Where n = 1 to 5

## DESCRIPTION

PEAM-645 is a polyester acrylate/methacrylate that exhibits low CTE, high Tg, and high modulus. The oligomer has very high thermal stability and low volatility. It can be used as a base resin in a formulation or as an additive. It exhibits good adhesion on various substrates. The oligomer also exhibits good hydrolytic stability.

#### HIGHLIGHTS

- High Tg
- Low CTE

- High adhesion to various substrates
- Thermal stability

## **TYPICAL PHYSICAL AND CHEMICAL PROPERTIES**

PROPERTY	METHOD	RESULT
Appearance at Room Temperature	Visual	Amber liquid
Viscosity @ 40°C	Haake Rheometer	5,000 cP
Functionality		2
Molecular Weight		645 daltons
Weight Loss @ 300°C	TGA	< 3.0%
Decomposition Temperature	TGA	> 375°C
Recommended Storage Temp		10°C or below
PHYSIOCHEMICAL		
Glass Transition Temperature	ТМА	160°C
cured with 2% Dicumyl Peroxide	DMA	183°C
Coefficient of Thermal Expansion	ТМА	∞ <sub>1</sub> 50 ppm/°C
cured with 2% Dicumyl Peroxide		∞ <sub>2</sub> 173 ppm/°C
Dynamic Tensile Modulus		
cured with 2% Dicumyl Peroxide	Phoometrics	
-65°C	Rheometer	4,100 MPa
25°C		3,400 MPa
150°C		1,600 MPa

Data is for reference only and may vary depending on testing method used. The structure shown above is an idealized representation of a statistical distribution.

### **RECOMMENDED FORMULATION USE:**

PEAM-645 is recommended for use as a base resin in adhesive applications or coating applications. The material if used alone can exhibit brittleness and the incorporation of a toughener (such as ABS, or hyperbranched polyester) is recommended. The oligomer has good solubility in both aliphatic and aromatic co-monomers.

# CONTACT:

#### **REQUEST A SAMPLE OR PLACE AN ORDER**

Customer Support 28858-348-1122 Support@designermoleculesinc.com REF: DMI Part Number: R1096

• 10080 Willow Creek Road • San Diego, CA 92131 • Tel: (858) 348-1122 • Fax: (858) 348-1123 •

www.designermoleculesinc.com •