



## 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	• High adhesion to various substrates
• Low CTE	• Thermal stability

## TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

PROPERTY	METHOD	RESULT
Appearance at Room Temperature	Visual	Amber Liquid
Viscosity @ 40°C	Haake Rheometer	5,000 cps
Functionality		2
Molecular Weight		645
Weight Loss @ 300°C	TGA	< 3.0%
Decomposition Temperature	TGA	> 375°C
Recommended Storage Temp		10°C or below
<b>PHYSIOCHEMICAL</b>		
Glass Transition Temperature cured with 2% Dicumyl Peroxide	TMA	160°C
	DMA	183°C
Coefficient of Thermal Expansion cured with 2% Dicumyl Peroxide	TMA	$\alpha_1$ 50 ppm/°C
		$\alpha_2$ 173 ppm/°C
Dynamic Tensile Modulus cured with 2% Dicumyl Peroxide	Rheometrics Rheometer	4,100 MPa
		-65°C
		25°C
		150°C

*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

Dawn Butts

☎ 858-348-1122 ext. 4726

✉ [dbutts@designermoleculesinc.com](mailto:dbutts@designermoleculesinc.com)

REF: DMI Part Number: R1096