



# Interfacial Solutions

## Product Data Sheet & General Processing Conditions

### deTerra® Bio-Based Polymer

### PR 146 Non-Halogenated Flame Retardant Grade

Material Property	Value	Units	ASTM TEST
<b>Bio-based Content</b> (outside lab testing)	93%		ASTM D 6866
<b>Specific Gravity</b> *	1.26	g/cm <sup>3</sup>	
<b>Melt Flow Rate</b> * @ 190 °C, / 2.16 kg	1.5 – 5.5	g/10 min	D 1238
<b>MECHANICAL</b> *			
<b>Impact Strength, Izod</b> notched 1/8 in (3.2 mm) section	1.05	ft-lbs/in	D 256
unnotched 1/8 in (3.2 mm) section	8.35	ft-lbs/in	D 256
<b>Tensile Strength</b>	6,900	psi	D 638
<b>Tensile Elongation</b>	2.73	%	D 638
<b>Tensile Modulus</b>	443,000	psi	D 638
<b>Flexural Strength</b>	13,800	psi	D 790
<b>Flexural Modulus</b>	449,000	psi	D 790
<b>THERMAL</b> *			
<b>Deflection Temperature</b> @ 264 psi (1820 kPa)	137	°F	D 648
* Above values per Interfacial Solutions lab testing of injection molded samples			
<b>FLAMMABILITY</b>			
<b>Flame Spread Index</b>	< 25		ASTM E-84
<b>Smoke Developed Index</b>	< 450		ASTM E-84

Flammability testing done per UL 723

### General Extrusion Processing Conditions

Melt Temperature	330 - 370 °F
Die Temperature	360 - 390 °F
Drying	2 - 4 hrs @ 120 °F
Target Moisture Level (after drying)	< 0.04%

*This grade is the commercial product version of XP404*

## PROCESSING NOTES

This information is intended to be used only as a guideline for designers and processors of modified thermoplastics. Because design and processing is complex, a set solution will not solve all problems. Observation on a “trial and error” basis may be required to achieve desired results.

Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein. Properties may be materially affected by molding techniques applied and by the size and shape of the item molded. No assurance can be implied that all molded articles will have the same properties as those listed.

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