



# Apium PEI 9085 Natural

Polyethylenimine, a high performance thermoplastic

## Description of the Material:

Apium PEI 9085 Natural, Ø1,75 mm - High thermal resistance, high chemical resistance, high stress resistance, low weight, post treatment possible, little warping

## Applications:

PEI is an amorphous polymer well known for aerospace applications. Besides that the material can also be used for industrial applications.

## Material Properties: Raw Material

	Conditions	Test Methodology	Unit	Value
<b>Mechanical Properties</b>				
Tensile Strength at yield	23 °C	ISO 527	MPa	<b>88</b>
Tensile strength at break	23 °C	ISO 527	MPa	<b>71</b>
Elongation at yield	23 °C	ISO 527	%	<b>7</b>
Elongation at break	23 °C	ISO 527	%	<b>50</b>
Impact Strength (Charpy)	Notched 80*14*04 +23 °C	ISO 179-1eU	kJ/m <sup>2</sup>	<b>13</b>
<b>Thermal Properties</b>				
Melting Temperature			°C	<b>280-310</b>
Glass Transition Temperature		ISO 11357	°C	<b>216</b>
Decomposition Temperature			°C	<b>510</b>
<b>Miscellaneous</b>				
Density	Amorphous	ISO 1183	g/cm <sup>3</sup>	<b>1.34</b>
<b>Electrical Properties</b>				
Volume Resistivity		IEC 60093	Ωcm	-
Surface Resistance		IEC 60093	Ω	-
<b>Fire, Smoke and Toxicity</b>				
Glow Wire Test				-
Oxygen Index		ASTM D 2863	%	<b>49</b>
Toxicity Index	CO <sub>2</sub> Content	NES 713	n/a	-
FAA Flammability	FAR 25.853 A/B	FAR 25.853		<b>&lt;5</b>

## Important remarks:

- 1) The data have been generated for Apium Additive Technologies in accordance with applicable national, international and internal standards and are intended for material comparison. Typical values may vary depending on part geometry and processing parameters.

For further information and detailed data please contact us.

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