

## Technical Data Sheet

### *Polyfort* TPP40AE05UL-BKBLK



Polypropylene, Homopolymer

#### Product Description

*Polyfort* TPP40AE05UL-BKBLK is a Polypropylene Homopolymer Talc, 42% filled material and is typically used in Injection Molding applications. Features include: Heat Stabilized, and Homopolymer.

<b>Processing Method</b>	Injection Molding
<b>Attribute</b>	Heat Stabilized; Homopolymer
<b>Forms</b>	Pellets
<b>Appearance</b>	Black
<b>Additive</b>	Heat Stabilizer
<b>Filler/Reinforcement</b>	Talc, 42%

Typical Properties	Nominal Value	Units	Test Method
<b>Physical</b>			
Melt Flow Rate, (230 °C/2.16 kg)	5.5	g/10 min	ASTM D1238
Density - Specific Gravity	1.27	g/cm <sup>3</sup>	ASTM D792
<b>Mechanical</b>			
Tensile Strength, (23 °C)	30.3	MPa	ASTM D638
Flexural Modulus			
(23 °C, 1% Secant)	2990	MPa	ASTM D790
(23 °C, Tangent)	3830	MPa	ASTM D790
Tensile Elongation at Break, (23 °C)	6.0	%	ASTM D638
Flexural Strength, (23 °C)	51.0	MPa	ASTM D790
<b>Impact</b>			
Gardner Impact, (23 °C)	0.565	J	ASTM D5420
Unnotched Izod Impact, (23 °C)	220	J/m	ASTM D4812
Notched Izod Impact, (23 °C)	21	J/m	ASTM D256
<b>Hardness</b>			
Durometer Hardness, (Shore D)	75		ASTM D2240
<b>Thermal</b>			
Deflection Temperature Under Load Unannealed (264 psi)	82.2	°C	ASTM D648
Deflection Temperature Under Load Unannealed (66 psi)	132	°C	ASTM D648

<b>Injection Parameters</b>	<b>Nominal Value</b>	<b>Units</b>
Drying Time	2.0 to 3.0	hr
Drying Temperature	80	°C
Clamp Tonnage	2.8 to 4.1	kN/cm <sup>2</sup>
Nozzle Temperature	216 to 218	°C
Screw Speed	100 to 150	rpm
Processing (Melt) Temp	220 to 260	°C
Front Temperature	213 to 216	°C
Screw L/D Ratio	20.0-1.0	
Screw Compression Ratio	2.0-1.0	
Middle Temperature	210 to 213	°C
Rear Temperature	204 to 210	°C
Back Pressure	0.138 to 0.345	MPa
Mold Temperature	30 to 60	°C