

PHACT™ CB0400A

This product is designed for extrusion (drinking straws) and sheet/thermoforming applications. It is based on PHA (PHACT S1000P and A1000P) and minerals. All ingredients used in this product are certified (TUV and BPI, where applicable) to be industrially compostable, home compostable, soil biodegradable and marine biodegradable (S1000P;390µm, A1000P;250µm). Please consult your sales/technical representatives for details.

PROPERTIES OF PHACT CB0400A

Properties	Units	ASTM No	CB0400A
Forms	-		Pellet
Specific Gravity	-	D792	1.52
Hardness - Max	Shore D	D2240	50
Secant Modulus (1mm)	MPa	D638	1700
Elongation at Break ¹⁾	%	D638	5
Ultimate Tensile Strength ¹⁾	MPa	D638	30
Heat Deflection Temperature /0.455 MPa	°C	D648	140
Melting Point ²⁾	°C	D3418	165
Glass Transition Temperature ²⁾	°C	D3418	-5
Melt Flow Rate (190 °C, 2.16 kg)	g/10 min	D1238	5

1) Injection specimens conforms to ASTM D638. Crosshead speed 50 mm/min for tensile strength.

2) Differential Scanning Calorimeter (DSC), peak of endotherm. Heating rate 10 °C/min.

PROCESSING CONDITION INJECTION MOLDING

Dry Temperature	75 °C x 4 hours	Compression/Melting	165 ~ 175 °C
Feed Temperature	25~40 °C	Metering	165 °C
Solid Conveying	170 ~ 175 °C	All Die Zones	150 ~ 160 °C

The water bath must be set to 60-65 °C to enable fast crystallization of the product

Drying & Moisture Management

PHA CB0400A will be supplied in pellet form in aluminum foil-lined packaging with a moisture content of 400 ppm or less when packed. A moisture content of less than 0.04% (400ppm) is highly recommended to prevent viscosity degradation during processing. Typical drying conditions are 4 hours at 75 °C (167 °F) with a dew point of -40 °C (-40 °F). The resin should not be exposed to atmospheric conditions after drying. Keep the package sealed until ready to use and promptly reseal any unused material.

Safety Precautions

PHA CB0400A must be handled and processed with adequate ventilation and proper personal protective equipment. Temperatures above 190°C (374°F) can result in considerable polymer degradation. Therefore, adequate ventilation should be provided where hot polymer may reside for long periods such as when multiple shots are being held in the barrel.

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