

TECHNICAL DATA SHEET

PHACT™ A1000P

PHACT™ A1000P is an environmentally friendly amorphous polyhydroxyalkanoate (P3HB-P4HB) biopolymer. It is certified for biodegradability under marine, soil, home, and industrial compost conditions. PHACT A1000P is suitable for general compounding with other polymers and can be processed using various conversion technologies including injection molding, extrusion, thermoforming, fiber spinning, nonwovens, as well as blown, biax, and cast films.

PROPERTIES OF PHACT A1000P

Properties	Units	A1000P	ASTM No.
Forms		Pellet	
Specific Gravity		1.23	D792
Hardness ¹ - Max - 15s	Shore A	< 80 < 70	D2240
Tensile Strength at Break ¹	MPa	< 2.2	D638
Elongation at Break ¹	%	< 500	D638
Glass Transition Temperature ²	°C	-17 ~ -14	D3418
Melt Flow Rate (165 °C, 5 kg)	g/10 min	< 5	D1238
Haze ³	%	< 8.9	E313-73
Transmittance ³	%	< 93	

1) Injection specimens conform to ASTM D638 and D2240. Crosshead speed 200 mm/min for tensile strength. Tensile strength and hardness data were collected after the injected specimens were stored for 24 hours at room temperature.

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

3) Film thickness 90 µm.

PROCESSING CONDITIONS

For processing conditions, see our compounding and processing guidelines available on our website [cjbiomaterials.com](https://www.cjbiomaterials.com).

STORAGE CONDITIONS

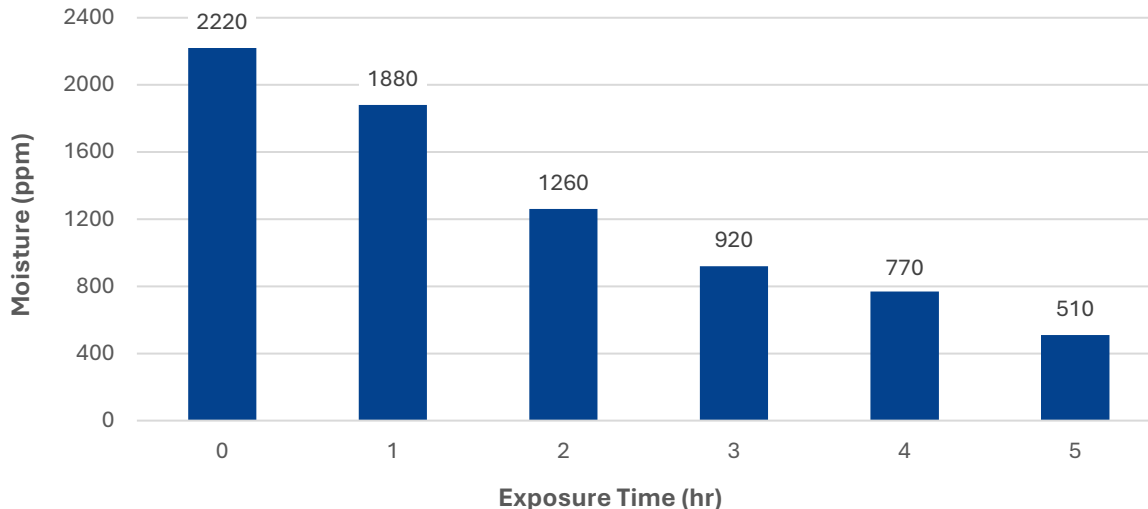
PHACT A1000P is an amorphous polymer that is aggregated easily when exposed to 60 °C with humid condition. Avoid direct sunlight, heat or fire, and store at a dry, ventilated cool place.

STORAGE & DRYING PROCESS CONDITIONS

PHACT A1000P is supplied in foil-lined boxes or bags dried to < 500 ppm. It is recommended to use all the product once a bag is opened. If an opened bag must be stored for reuse, seal completely, avoid air exposure, and store in a dry, well-ventilated place. Avoid long-term storage.

It is recommended to dry PHACT PHA packaging for 4-6 hours at 50 °C. Drying should be done in a dehumidifying chamber with a dew point < -40 °C. The paddle-type dehumidifying dryer is recommended to agitate the pellets and prevent agglomeration during drying (Figure 1).

Figure 1. Moisture content of PHA in paddle dryer



HANDLING RECOMMENDATIONS

Ensure that processing is completed within 30 minutes of opening a bag of PHACT PHA. Exposure to ambient temperatures for more than 30 minutes may result in moisture absorption, leading to changes in melt flow index (MFI). If the MFI has changed, we recommend re-drying the material before use.

NOTICE

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