

TECHNICAL DATA SHEET

PHACT™ S1000P

PHACT™ S1000P is an environment-friendly semi-crystalline polyhydroxyalkanoate (P3HB-P4HB) biopolymer. It is certified for biodegradability under marine, soil, home, and industrial compost conditions. PHACT S1000P 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 S1000P

Properties	Units	S1000P	ASTM No.
Forms		Pellet	
Specific Gravity		1.23	D792
Hardness - Max	Shore D	< 90	D2240
Tensile Strength at Peak ¹	MPa	30 ~ 35	D638
Elongation at Break ¹	%	< 60	D638
IZOD Impact strength (notched)	J/M	< 28	D256-23e1
Flexural strength ²	MPa	60 ~ 70	D790-17
Flexural modulus ²	MPa	< 2,000	D790-17
Heat Deflection Temperature / 0.455 MPa	°C	< 130	D648
Melting Point ³	°C	150 ~ 170	D3418
Glass Transition Temperature ³	°C	-6 ~ 0	D3418
Melt Flow Rate (180 °C, 2.16 kg)	g/10 min	< 4	D1238

1) Injection specimens conform to ASTM D638. Crosshead speed 50 mm/min.

2) Flexural strength test speed: 2.8mm/min, Flexural modulus test speed: 2mm/min.

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

PROCESSING CONDITIONS

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

STORAGE CONDITIONS

Avoid direct sunlight, heat or fire, and store in a dry, ventilated cool location.

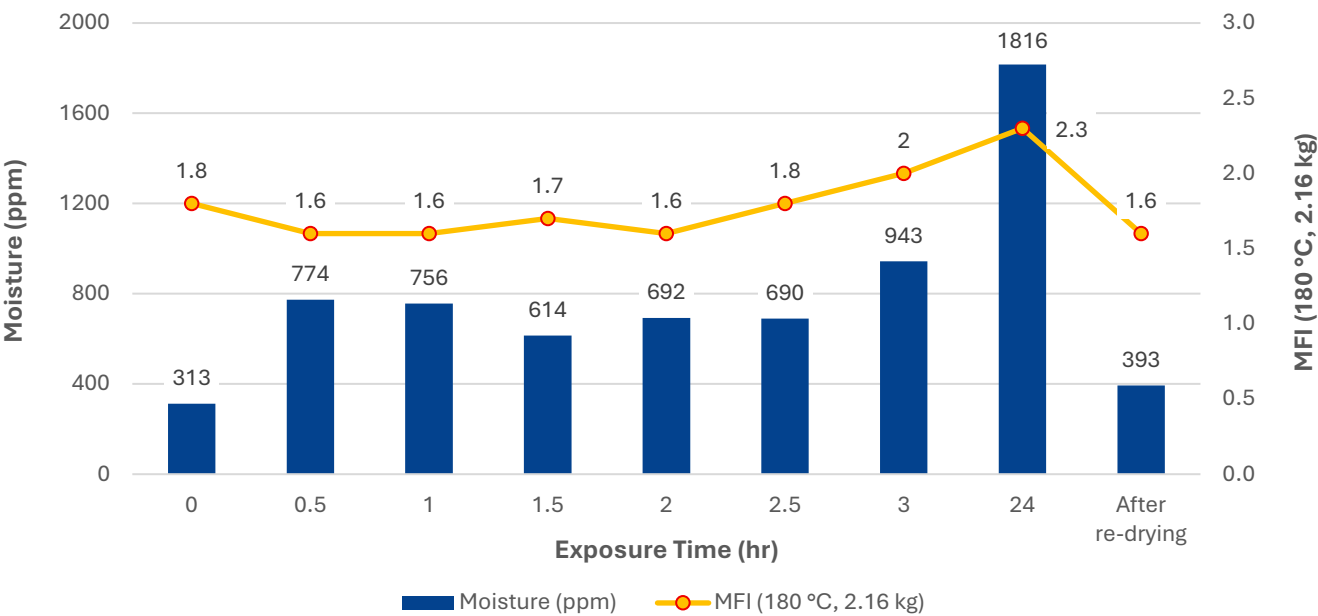
STORAGE & DRYING PROCESS CONDITIONS

PHACT S1000P 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 < 80 °C. Drying should be done in a dehumidifying chamber with a dew point < -40 °C.

HANDLING RECOMMENDATION

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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