

TECHNICAL DATA SHEET

15.03.2023

Version 2.0

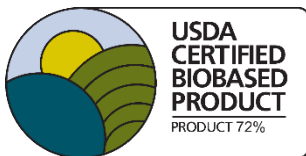
SULAPAC FLOW V1.7 – EX1013

MATERIAL FEATURES

Sulapac Flow 1.7 is a sustainable extrusion material with outstanding functional properties and a unique, natural look and feel. It is ideal for thin-walled structures like straws. Sulapac Flow 1.7 contains 72% USDA certified biobased content. The main components are wood from industrial side streams and bio-based biodegradable polymers.

Sulapac Flow 1.7 is safe for both people and the planet. The material is industrially compostable certified according to BPI (ASTM D6400) and Seedling (EN 13432). It leaves no permanent microplastics or toxic load behind¹. Sulapac Flow 1.7 meets the EU and US FDA requirements for food contact materials².

For further information, visit sulapac.com/key-features/



¹ Biodegradation of 75,5% in 420 days in the marine environment ASTM D6691 (86°F / 30°C). Not considered biodegradable in California.

² Restrictions and specifications of use apply, please refer to relevant Declaration of Compliance for further information.

MECHANICAL PROPERTIES – SULAPAC FLOW v1.7

PROPERTY	METRIC UNIT	TYPICAL VALUE
RHEOLOGICAL PROPERTIES		
MFI (190°C/2.16 kg)	g/10min	1 – 4
TENSILE PROPERTIES (ISO 527-1)		
Tensile strength	MPa	33
Tensile modulus	MPa	2300
Tensile strain	%	11
THERMAL PROPERTIES - DSC, 10°C/min		
Melting point	°C	151
Glass transition temperature	°C	58
OTHER PHYSICAL PROPERTIES		
Material density	g/cm ³	1.26
Bulk density	g/cm ³	0.72
Flexural modulus (ISO 178)	MPa	3000
Impact strength (ISO 179, unnotched)	kJ/m ²	34
Hardness (Shore D)	NA	84

PROCESSING INSTRUCTIONS FOR EXTRUSION

MOISTURE AND DRYING

INSTRUCTIONS

- Before processing the granules should be dried using a dehumidifying dryer or vacuum dryer
- If a dehumidifying dryer is used, the granules should be dried for at least 4-6 hours at 75°C
- If a vacuum dryer is used, the granules should be dried for at least 20 min at 75°C and when kept in the vacuum for at least 40 minutes.
- The best end result will be achieved if the residual moisture of the granules is < 0,2 %.
- Avoid exposing the material to the ambient conditions after drying.
- Excessive moisture content can lead to degradation of binders via hydrolysis during processing.
- Dried granules should be mixed with the color masterbatch after the granules have cooled down in order to avoid the agglomeration of color masterbatch granules.

PROCESSING CONDITIONS		
	TEMPERATURE	GENERAL INSTRUCTIONS
Feed Zone	RT - 180°C	<ul style="list-style-type: none"> • Typical settings may require optimization. • Avoid using temperatures above 200°C to lower the risk of wood and binder degradation. • The dwell time of the material inside the machine shall be reduced to a minimum to lower the risk of thermal degradation. Degradation products may cause corrosion of equipment. • Decreasing temperature profile is recommended.
Melt Zone	155 - 180°C	
Mixing and conveying zone	155 - 180°C	
Die	155 - 180°C	

STORAGE AND TRANSPORTATION INSTRUCTIONS

STORAGE AND TRANSPORTATION
<p>INSTRUCTIONS</p> <ul style="list-style-type: none"> • It is recommended to store the granules in their closed, original moisture barrier packaging at room temperature (23°C). • Storage in direct sunlight or in rain should be avoided. • Temperatures during transportation and storage may not exceed 60°C at any time. • Material shelf-life is 24 months from the manufacturing date when stored at room temperatures (23 °C). Manufacturing date can be found on the label on material packaging.



Sulapac is proud to be an ISO 9001 and ISO 14001 certified company

The information provided in this technical data sheet is based on our current knowledge and experience at the date of its publication. In view of the individual factors that may affect processing and application, this data does not relieve users from the responsibility of carrying out their own tests and experiments. No representation or warranty is made as to the truth or accuracy of any data, information or opinions contained herein or as to their suitability for any purpose, condition, or application. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.