

TECHNICAL DATA SHEET

SULAPAC FLOW v1.7

Updated 26.03.2021

Version No 1.4

MATERIAL FEATURES

Sulapac Flow v1.7 is a sustainable extrusion material with outstanding functional properties and beautiful appearance. The main components are wood from industrial side streams and biodegradable biopolymers. The renewable material content¹ is 69.4%. All raw materials are sourced according to a strict sustainability policy and the wood originates from certified forests.

Sulapac Flow v1.7 is safe for both people and the planet: The material is industrially compostable² based on raw materials industrial compostability and field testing. ASTM D6400 and BPI certification in progress. Can be digested by naturally occurring microorganisms and does not leave permanent microplastics behind³. It complies with the food contact requirements of the FDA⁴ legislation.

For more details, visit www.sulapac.com/key-features

MECHANICAL PROPERTIES – SULAPAC FLOW v1.7				
PROPERTY	METRIC UNIT	TYPICAL VALUE	IMPERIAL UNIT	TYPICAL VAULE
RHEOLOGICAL PROPERTIES				
MFI (190°C/2.16 kg) (374°F/4,76lb)	g/10min	0.7-1.0	Oz/10min	0.0247 - 0.0353
TENSILE PROPERTIES (ISO 527-1)				
Tensile strength	MPa	33	psi	4 786
Tensile modulus	MPa	2300	psi	335 900
Tensile strain	%	11	%	11
THERMAL PROPERTIES - DSC, 10°C/min (50°F/min)				
Melting point	°C	151	°F	303
Glass transition temperature	°C	58	°F	136
OTHER PHYSICAL PROPERTIES				
Material density	g/cm ³	1.26	lb/ft ³	79
Bulk density	g/cm ³	0.72	lb/ft ³	45
Flexural modulus (ISO 178)	MPa	3000	psi	435 110
Impact modulus (ISO 179, unnotched)	kJ/m ²	34	ft-lb/in ²	16.2

¹ USDA Bio-based certification in progress.

² Industrially compostable based on raw materials industrial compostability and field testing. ASTM D6400 and BPI certification in progress. Please, check the detailed recycling instructions with local USAD recycling authority.

³ Made of wood chips and biodegradable biopolymers.

⁴ The material is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. Ecotoxicity and threshold values for heavy metals tested. EU and FDA food contact requirements approved.

PROCESSING INSTRUCTIONS FOR EXTRUSION

MOISTURE AND DRYING

SULAPAC FLOW v1.7

- Pre-drying of the granules is not mandatory before extrusion.
- However, granules can be dried for 4-6 hours at 75°C/167°F, if needed.
- 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 – SULAPAC FLOW v1.7

	TEMPERATURE	GENERAL INSTRUCTIONS
Feed Zone	RT - 180°C RT - 356°F	<ul style="list-style-type: none"> • Typical settings may require optimization. • Avoid using temperatures above 200°C/392°F 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 311 - 356°F	
Mixing and conveying zone	155 - 180°C 311 - 356°F	
Die	155 - 180°C 311 - 356°F	

STORAGE AND TRANSPORTATION INSTRUCTIONS

STORAGE INSTRUCTIONS

SULAPAC FLOW v1.7

- It is recommended to store the granules in their closed, original moisture barrier packaging at room temperature (23°C/73.4°F).
- Storage in direct sunlight or in rain should be avoided.
- Storage time of unopened bags may not surpass 12 months.
- Temperatures during transportation and storage may not exceed 60°C/140°F at any time.