SULAPAC

TECHNICAL DATA SHEET

28.03.2025
Version 2.4

SULAPAC SOLID 2.0 – IM1026.0NC
SULAPAC SOLID 2.0 WHITE – IM1026.0AW
SULAPAC SOLID 2.0 BLACK – IM1026.0BP

Sulapac Solid 2.0 is a sustainable solution for injection molding. The material is ideal for cosmetic packaging caps and closures, as well as for reusable kitchenware items intended to be used on daily basis. When processed with a hot mold, material is microwave safe and can withstand repeated dishwashing. Note that Solid 2.0 Black is not suitable for dishwasher due to color fading.

TYPICAL MATERIAL PROPERTIES	
	IM1026.0NC IM1026.0AW IM1026.0BP
PHYSICAL PROPERTIES	
Hardness (Shore D)	91
Material density (g/cm^3)	1,4
Shrinkage (%)	0,15
TENSILE PROPERTIES (ISO 527-1)	
Tensile strength at yield (MPa)	65
Tensile modulus (GPa)	7,8
Tensile strain at yield (%)	1,3
FLEXURAL PROPERTIES (ISO 178)	
Flexural strength at max load (MPa)	83
Flexural modulus (GPa)	8,5
Flexural strain at max load (%)	1,3
IMPACT PROPERTIES (Unnotched, ISO 179-1)	
Charpy impact strength (kJ/m^2)	16
RHEOLOGICAL PROPERTIES (ISO 1133) (190°C/2,16 kg)	
MFI (g/10min)	22
HEAT RESISTANCE	
HDT-B (°C) – Hot mold	135
HDT-B (°C) – Cold mold	56
BIOBASED CONTENT (ASTM D6866)	
Biobased content (%)	100

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DRYING INSTRUCTIONS

DRYING

- Before processing, the granules should be dried using a dehumidifying dryer or a vacuum dryer
  - Dehumidifying dryer: the granules should be dried for at least 4 hours at 100°C
  - Vacuum dryer: the granules should be first dried for at least 20 minutes at 100°C
- The best end result will be achieved if the residual moisture of the granules is < 0,2 %
- After drying, avoid exposing the material to ambient conditions
- Moisture content can lead to hydrolysis
- If adding color masterbatch, ensure the granules have cooled down to 50°C after drying to avoid the agglomeration of color masterbatch granules

USE OF MASTERBATCH

- Sulapac materials can be colored in the same way as conventional plastics. With Sulapac materials use color masterbatches with biodegradable carriers; PLA, PHA, PBAT, PBS. For further information, please see Sulapac color masterbatch guide.
- Dark colors may fade when washed in dishwasher. We recommend use of lighter / pastel colours.

PROCESSING CONDITIONS

GENERAL INSTRUCTIONS

- Typical settings may require optimization
- Both cold and hot runner systems are suitable for these materials
- Valve gate systems can be used
- Avoid using temperatures above 210°C in order to lower the risk of polymer degradation
- The dwell time of the material inside the machine shall be reduced to minimum in order to lower the risk of thermal degradation

RECOMMENDED TEMPERATURES

Throat	40 - 60 °C
Feed zone	150 - 165 °C
Compression zone	180 - 200 °C
Homogenizing zone	180 - 200 °C
Machine nozzle	185 - 210 °C
Back pressure	5 - 10 bar
Hot runner nozzle and bushing	180 - 210 °C
Tooling temperature	100 °C / 20 °C

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PURGING INSTRUCTIONS

BEFORE PRODUCTION

- Purge the plasticization unit and the hot runner with PP or PE

DURING PRODUCTION

- The material is heat sensitive. Avoid high processing temperatures and long dwell times
- If an extensive amount of burned material or fumes starts to appear in the products, try lowering processing temperature
- In case of production break flush the plasticization unit with fresh material

AFTER PRODUCTION

- Purge the plasticization unit and the hot runner with PP or PE
- Clean up the mold after production

STORAGE, TRANSPORTATION AND SHELF-LIFE

STORAGE

- In original unopened packaging at temperatures below 45°C
- Once opened, reseal the package after each use
- In dry conditions and avoid exposure to high humidity and rain
- Away from direct sunlight

TRANSPORTATION

- Temperatures during transportation may not exceed 60°C

SHELF-LIFE

- Shelf-life is from the date of manufacture, for unopened bags at room temperature (23°C)
- Date of manufacture can be found on the label attached to the original packaging

Sulapac Solid 2.0 – IM1026.0NC	24 months
Sulapac Solid 2.0 White – IM1026.0AW	24 months
Sulapac Solid 2.0 Black – IM1026.0BP	24 months

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