SULAPAC

TECHNICAL DATA SHEET

15.04.2025
Version 3.3

SULAPAC FLOW 1.8 – EX1014.2NC

SULAPAC FLOW 1.8 WITH RECYCLED CONTENT – EX1014.3NC

Sulapac Flow 1.8 is a sustainable solution for extrusion. With outstanding functional properties it's ideal for extrusion profiles, such as cosmetic pencil barrels.

TYPICAL MATERIAL PROPERTIES	
	EX1014.2NC EX1014.3NC
PHYSICAL PROPERTIES	
Hardness (Shore D)	84
Material density (g/cm^3)	1,26
Bulk density (g/cm^3)	0,72
TENSILE PROPERTIES (ISO 527-1)	
Tensile strength at yield (MPa)	35
Tensile modulus (GPa)	2,1
Tensile strain at yield (%)	3
Tensile strain at break (%)	8
FLEXURAL PROPERTIES (ISO 178)	
Flexural strength at max load (MPa)	54
Flexural modulus (GPa)	2,4
Flexural strain at max load (%)	4,5
IMPACT PROPERTIES (Unnotched, ISO 179-1)	
Charpy impact strength (kJ/m^2)	33
RHEOLOGICAL PROPERTIES (ISO 1133) (190°C/2,16 kg)	
MFI (g/10min)	3
HEAT RESISTANCE	
HDT-B (°C)	54
Melting point (°C)	151
Glass transition temperature (°C)	58

BIOBASED CONTENT (ASTM D6866)	
Biobased content (%)	72

MATERIAL COLOUR

Due to the natural origin of wood, colour variation is possible both between and within material batches.

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 5-6 hours at 80°C
  - Vacuum dryer: the granules should be first dried for at least 20 minutes at 80°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 color masterbatch is added, the granules should be cooled down to 50°C in order 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.

EXTRUSION - PROCESSING CONDITIONS

GENERAL INSTRUCTIONS

- Typical settings may require optimization
- Avoid using temperatures above 200°C in order to lower the risk of wood and polymer degradation
- The dwell time of the material shall be reduced to minimum in order to lower the risk of thermal degradation
- Decreasing temperature profile is recommended

RECOMMENDED TEMPERATURES	
Feed zone	20 – 40 °C
Melting zone	165 – 185 °C
Mixing and convoying zone	170 – 190 °C
Die	180 – 190 °C

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PURGING INSTRUCTIONS

BEFORE PRODUCTION

- Purge the extruder 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 extruder with fresh material

AFTER PRODUCTION

- Purge the extruder with PP or PE
- Clean up the die 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 Flow 1.8 – EX1014.2NC	24 months
Sulapac Flow 1.8 with recycled content – EX1014.3NC	24 months

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