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## **Technical Data Sheet**

# **TECHNIPOL® Bio 1120**

### DESCRIPTION

TECHNIPOL<sup>®</sup> Bio 1120 is an aliphatic co-polyester, characterized a low melting point. Due to its formulation, it can be used inbiodegradable and compostable compounds. Furthermore, it exhibits a good compatibility with other biodegradable polymers aspolylactic acid and starch. It can be used as support polymer for master-batches both in granules and in powder form. Usable forinjection molding. TECHNIPOL<sup>®</sup> Bio 1120 is certified OK Compost INDUSTRIAL and OK Compost HOME by TÜV Austria.

### THERMAL PROPERTIES

PROPERTY	TEST METHOD	M.U.	TYPICAL VALUE
Melting temperature	ISO 11357-3	°C	114
Crystallization temperature	ISO 11357-3	°C	66
Glass transition temperature	ISO 11357-2	°C	-32
Vicat A /50	ISO 306	°C	99

#### RHEOLOGICAL PROPERTIES

	PROPERTY	TEST METHOD	M.U.	VALUE
MFI	190°C, 2.16kg	ISO 1133	g/10 min	22
MVR	190°C, 2.16kg	ISO 1133	g/10 min	17

#### **MECHANICAL PROPERTIES**

PROPERTY	TEST METHOD	M.U.	TYPICAL VALUE
Shore D hardness, instantaneous / 15 s	ISO 868	-	61/59
Stress at break	ISO 527	MPa	50
Elongation at break	ISO 527	%	450
Flexural modulus	ISO 178	MPa	450
Abrasion resistance (Vertical load 5N)	ISO 4649	mm³	64
Izod impact resistance/notched (23°C)	ISO 180	J/m	46
Izod impact resistance/notched (-40°C)	ISO 180	J/m	32
Compression set (23°C)	ISO 815:1991	%	33
Compression set (70°C)	ISO 815:1991	%	46

### **OTHER PROPERTIES**

PROPERTY	TEST METHOD	M.U.	TYPICAL VALUE
Density	ISO 1183	g/cm³	1,26
Water absorption (23°C x 24 h immersion)	MI 08	%	0,44

Version N°: 3.EN	Revision n° 0	Revision date: 23/01/2023

The information provided herein corresponds to our current knowledge on date of publication. This information may be subject to review, if further experience and knowledge become available. The data reported corresponds to typical values and should not be considered as specification limits, or as a basis for design calculations. This data sheet must not in any way be construed as a license or as an invitation or permission to violate any existing patents, the existence of which must be verified by the Customer. The application, use and processing of Sipol products and the quality of the final products obtained by the customer are completely out of our control. The Customer is responsible for verifying that the material is suitable for the specific application; any data given here does not relieve the Customer from conducting appropriate checks and testing. Sipol cannot foresee all possible variations in actual end-use conditions, and therefore offers no warranty and assumes no liability in connection with any use of this information .



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### PROCESSING CONDITIONS

Suggested temperature profile for injection molding

MELTING TEMPERATURE	MOLD TEMPERATURE	NOZZLE	FRONT ZONE 3	CENTER ZONE 2	REAR ZONE 1
°C	°C	°C	°C	°C	°C
114	20 - 30	115	110	105	100

### Suggested temperature profile for extrusion

MELTING TEMPERATURE	MFI	FEEDING ZONE	COMPRESSION ZONE	METERING ZONE	HEAD/DIE
°C	g/10 min.	°C	°C	°C	°C
114	22 (190°C, 2.16 Kg)	95 - 105	105 - 125	110 - 130	110 - 130

#### DRYING CONDITIONS

Drying recommended = Yes Drying temperature = 60 °C Drying time, dehumidifier dryer = 2-3 h Processing moisture content = 0,15%

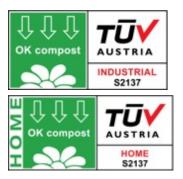
#### PACKAGING

25 kg bags equipped with an aluminum film barrier against moisture action. 500 kg cardboard octabins equipped with an inner PE liner. 500 Kg and 1000 Kg big bags.

### STORAGE

Product is stable for 6 months when stored unopened in its original packaging, kept in a cool and dry place and protected from light. When stocked around 5 – 10°C or below, it is recommended to keep it at 15 – 20°C for at least for 24 hours before using it.

### CERTIFICATIONS



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