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P.I. 01842120188

### **Technical Data Sheet**

# **TECHNIPOL® Bio 1160**

### DESCRIPTION

TECHNIPOL® Bio 1160 is an aromatic - aliphatic copolyester, characterized by medium crystallinity and a low melting point. Due to itsformulation, it can be used in biodegradable and compostable compounds. Furthermore it exhibits a good compatibility with otherbiodegradable polymers as polylactic acid and starch. It can be used as support polymer for master-batches both in granules and inpowder form. Usable for injection molding.

TECHNIPOL® Bio 1160 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	115
Crystallization temperature	ISO 11357-3	°C	70
Glass transition temperature	ISO 11357-2	°C	-35
Vicat A /50	ISO 306	°C	69

### RHEOLOGICAL PROPERTIES

	PROPERTY	TEST METHOD	M.U.	VALUE
MFI	160°C, 2.16kg	ISO 1133	g/10 min	20
MVR	160°C, 2.16kg	ISO 1133	g/10 min	16

### **MECHANICAL PROPERTIES**

PROPERTY	TEST METHOD	M.U.	TYPICAL VALUE
Shore D hardness, instantaneous / 15 s	ISO 868	-	34/32
Stress at break	ISO 527	MPa	17
Elongation at break	ISO 527	%	365
Flexural modulus	ISO 178	MPa	60
Abrasion resistance (Vertical load 5N)	ISO 4649	mm³	75
Izod impact resistance/notched (23°C)	ISO 180	J/m	No break
Izod impact resistance/notched (-40°C)	ISO 180	J/m	No break
Compression set (23°C)	ISO 815:1991	%	34
Compression set (70°C)	ISO 815:1991	%	48

### OTHER PROPERTIES

PROPERTY	TEST METHOD	M.U.	TYPICAL VALUE
Density	ISO 1183	g/cm³	1,23
Water absorption (23°C x 24 h immersion)	MI 08	%	0.75

Version N°: 3.EN Revision n° 0 Revision date: 03/08/2022

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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## **TECHNIPOL® Bio 1160**

### 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
115	20 - 30	120	115	110	105

### Suggested temperature profile for extrusion

MELTING TEMPERATURE	MFI	FEEDING ZONE	COMPRESSION ZONE	METERING ZONE	HEAD/DIE
°C	g/10 min.	°C	°C	°C	°C
115	20 (160°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%

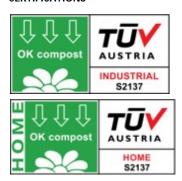
### **PACKAGING**

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  $5 - 10^{\circ}$ C or below, it is recommended to keep it at  $15 - 20^{\circ}$ C for at least for 24 hours before using it.

### CERTIFICATIONS



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