

Technical data sheet

Product name: **Bio-Flex® F 1137**
Bio-Flex® Bin Liner

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1. Designation of product, preparation and manufacturer

1.1 Trade name: Bio-Flex® F 1137 / Bio-Flex® Bin Liner
previously Bio-Flex® V 2877

1.2 Description: Biodegradable and compostable compound for film extrusion, certified according to EN 13432. Used in applications such as waste bags.

1.3 Manufacturer: FKUR Kunststoff GmbH
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2. Mechanical properties

Tensile modulus of elasticity	310	[MPa]	ISO 527
Tensile strength	15.5	[MPa]	ISO 527
Tensile strain at tensile strength	415	[%]	ISO 527
Tensile stress at break	13.8	[MPa]	ISO 527
Tensile strain at break	425	[%]	ISO 527
Flexural modulus	305	[MPa]	ISO 178
Flexural strain at break	no break	[%]	ISO 178
Flexural stress at 3.5 % strain	11.5	[MPa]	ISO 178
Notched impact strength (Charpy), RT	no break	[kJ/m²]	ISO 179-1/1 eA
Impact strength (Charpy), RT	no break	[kJ/m²]	ISO 179-1/1 eU
Density	1.47	[g/cm³]	ISO 1183
Bulk density	n/a	[kg/m³]	ISO 60

3. Thermal properties

Melt temperature	> 155	[°C]	ISO 3146-C
Vicat A softening temperature	n/a	[°C]	ISO 306
Heat distortion temperature HDT B	n/a	[°C]	ISO 75
Melt volume rate (190 °C/2.16 kg)	1.5 - 3.5	[cm³/10 min]	ISO 1133
Melt flow rate (190 °C/2.16 kg)	2.0 - 4.5	[g/10 min]	ISO 1133

4. Film properties (20 µm)

Tensile modulus MD / TD	515 / 420	[MPa]	ISO 527-5
Tensile strength (yield stress) MD / TD	37 / 25	[MPa]	ISO 527-5
Elongation at yield stress MD / TD	290 / 460	[%]	ISO 527-5
Breaking stress MD / TD	36 / 24	[MPa]	ISO 527-5
Elongation at break MD / TD	290 / 460	[%]	ISO 527-5
Tear propagation resistance (Elmendorf) MD / TD	100 / 290	[N/mm]	ISO 6383-2

MD = machine direction; TD = transversal direction

5. Legal notice

The values listed have been established on standardized test specimens at standard temperature and humidity conditions. The figures should be regarded as guide values only. Under certain conditions the properties can be influenced to a significant extent by the processing conditions.

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