

Technical data sheet

Product name: Bio-Flex® F 1138
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Version: 2.0

Designation of product, preparation and manufacturer

Trade name: Bio-Flex® F 1138
Use of product: Biodegradable and compostable compound for film extrusion, certified according to EN 13432 with a maximum thickness of 60 µm. Used in applications such as T-shirtbags and waste bags.
Manufacturer: FKUR Kunststoff GmbH
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Mechanical properties

Modulus of elasticity	405	[MPa]	ISO 527
Tensile strength	16	[MPa]	ISO 527
Tensile strain at tensile strength	360	[%]	ISO 527
Tensile stress at break	14	[MPa]	ISO 527
Tensile strain at break	370	[%]	ISO 527
Flexural modulus	390	[MPa]	ISO 178
Flexural strain at break	no break	[%]	ISO 178
Flexural stress at 3.5 % strain	10	[MPa]	ISO 178

The values listed have been established on standardized test specimens (DIN EN ISO 3167, type A) at standard temperature and humidity conditions.

Film properties (thickness 30 µm, BUR 2.3)

Tensile modulus MD/TD	410 / 260	[MPa]	ISO 527-3
Tensile strength (yield stress) MD/TD	20 / 14	[MPa]	ISO 527-3
Tensile strain at tensile strength MD/TD	430 / 470	[%]	ISO 527-3
Tensile stress at break MD/TD	20 / 13	[MPa]	ISO 527-3
Tensile strain at break MD/TD	430 / 470	[%]	ISO 527-3
Elmendorf tear resistance MD/TD	100 / 280	[N/mm]	ASTM D 1922
Impact strength (Spencer Impact Test)	200	[N/mm]	ASTM D 3420

MD= machine direction, TD = transverse direction

The values listed have been established on films at standard temperature and humidity conditions.

Melt flow rate (190 °C/2.16 kg)	2.0 - 5.0	[g/10 min]	ISO 1133
Melt volume rate (190 °C/2.16 kg)	1.5 - 4.0	[cm³/10 min]	ISO 1133
Melting temperature	> 155	[°C]	ISO 3146-C
Density	1.47	[g/cm³]	ISO 1183

Legal notice

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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