Technical data sheet

Product name: **Terralene® WF 3516**
Date of issue: 28 November 2022 Version: 2.0

Designation of product, preparation and manufacturer

Trade name: Terralene® WF 3516

Use of product: Biobased high density polyethylene, containing a low amount of wood fibres and functional additives. The biobased carbon content (BCC) is > 90% (determinated according to ASTM D6866). Suitable for injection moulding applications.

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Mechanical properties

Modulus of elasticity	1,310	[MPa]	ISO 527
Tensile strength	23	[MPa]	ISO 527
Tensile strain at tensile strength	9	[%]	ISO 527
Tensile stress at break	23	[MPa]	ISO 527
Tensile strain at break	10	[%]	ISO 527
Flexural modulus	1,270	[MPa]	ISO 178
Flexural strain at break	no break	[%]	ISO 178
Flexural stress at 3.5 % strain	22	[MPa]	ISO 178
Notched impact strength (Charpy), RT	3	[kJ/m²]	ISO 179-1/1 eA
Impact Strength (Charpy), RT	15	[kJ/m²]	ISO 179-1/1 eU

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

Physical properties

Melt flow rate (190 °C/2.16 kg)	13	[g/10 min]	ISO 1133
Melting temperature	130 - 145	[°C]	
Density	1.014 *)	[g/cm³]	ISO 1183

*) The density has been measured on an injection moulded test specimens (DIN EN ISO 3167, type A).

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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Processing and Handling Information

General

Terralene® is a compound mainly based on biobased polyethylene. It can contain additives, fossil polyolefins and reinforcing fillers. Due to its chemical structure it can be seen as drop-in solution to replace fossil polyolefins and shall be handeled and processed like standard polyolefins.

Drying

If packed in its original packaging and stored in good conditions drying is not necessary.
If moisture uptake is too high, Terralene® can be dried at 60 °C for a period of 2 - 4 hours.

Storage

If not specified otherwise product life is 6 month after shipment from Sellers warehouse if product is in its original packaging, stored under dry (max. 70% relative humidity) and dark conditions (not exposed to sunlight at a temperature of 5 °C to max. 30°C (ambient temperature). It is important to observe that a major drop in external air temperature (e.g. during transportation) can result in a development of water condensate. Prior to the processing of the material, it should be ensured that there is no condensate on the packaged product.
Finished products made from Terralene® shall be stored dry and cold. It is recommended to wrap goods in black PE liners to protect them against moisture and UV radiation. Storage time depends on processing parameters and of climate conditions in the respective area. Because of these essential and complex interacting parameters, FKuR Kunststoff GmbH cannot give any shelf life guarantees for finished products. Please notice that the conditions mentioned above depend on experience of our customers. Each customer should execute individual storage tests according to product specifications and storage requirements.

Processing conditions for injection moulding

Machine settings:	Feeding Zone	30 - 60	[°C]
	Zone 1	170	[°C]
	Zone 2	180	[°C]
	Zone 3	190	[°C]
	Machine nozzle	195	[°C]
	Mould temperature	30 - 50	[°C]
	Holding pressure level	50 - 80	[%]
	Melt cushion (of volume)	< 10	[%]
	Cooling time	15	[s]
	Max. dwell time	300	[s]
General advice:	Regrind sprues and runners can be reused at 20%.		

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