

Properties	Density	MFR 190 °C / 2.16kg	Tensile Modulus (MD/TD)	Tensile Strength (MD/TD)	Tensile Strain at Break (MD/TD)	Tear Resistance (MD/TD)	Spencer Impact Test	Minimum Biobased Carbon Content	Biodegradable	Certified Compostable	Translucent	Natural Fibre Reinforced	Food Contact Compliance	Already established in these applications:
Unit	[g/cm ³]	[g/10 mm]	[MPa]	[MPa]	[%]	[N/mm]	[N/m]	[%]		[Industrial EN 13432]	[Home EN 13432]			
Standard	ISO 1183	ISO 1133	ISO 527	ISO 527	ISO 527	ASTM D1922	ASTM D3420							
Blown Film Extrusion														
Bio-Flex® F 1100	1.25	1.0-4.0	300 / 160	30 / 37	410 / 570	85 / 35	570	<10 ^b	✓	✓	✓	✓	✓	Carry bags, shopping bags, automatic packaging film, hygienic films
Bio-Flex® F 1804	1.21	1.0-3.0	240 / 100	33 / 36	275 / 640	170 / 60	550	43 ^a	✓	✓	✓	✓	✓	Carry bags, bread bags, shopping bags, food packaging
Bio-Flex® F 2110	1.27	3.0-5.0	1130 / 340	49 / 28	220 / 430	111 / 30	680	28 ^a	✓	✓	✓	✓	✓	Shopping & waste bags, nettings, frozen food packaging, automatic packaging film
Bio-Flex® FX 1124	1.34	2.0-4.5	645 / 415	26 / 18	250 / 355	12.5 / 73	240	50 ^c	✓	✓	✓	✓	✓	Shopping bags, waste bags, nettings, food packaging, hygienic films
Bio-Flex® FX 1130	1.39	2.0-5.5	300 / 200	25 / 21	300 / 510	110 / 110	420	10 ^b	✓	✓	✓	✓	✓	Shopping bags, waste bags, nettings, hygienic films, mulch films
Bio-Flex® FX 1137	1.43	3.0-6.0	330 / 185	19 / 15	335 / 485	95 / 150	260	10 ^b	✓	✓	✓	✓	✓	Shopping bags, waste bags, laminates
Bio-Flex® FX 1821	1.38	2.0-5.5	150 / 110	23 / 21	500 / 570	100 / 180	240	10 ^b	✓	✓	✓	✓	✓	Shopping bags, waste bags, mulch films
Bio-Flex® FX 1824	1.35	2.0-4.0	130 / 85	21 / 16	480 / 580	140 / 300	160	43 ^a	✓	✓	✓	✓	✓	Shopping bags, waste bags
Bio-Flex® FX 2130	1.39	2.0-5.5	470 / 230	26 / 22	260 / 490	165 / 50	380	15 ^b	✓	✓ ^h	✓	✓	✓	Shopping bags, waste bags
Bio-Flex® A 4100 CL	1.24	6.0-10.0	904 / 1120	44 / 42	290 / 280	11 / 9	14	85 ^c	✓	✓	✓	✓	✓	Food packaging
Bio-Flex® F 2201 CL	1.25	8.0-10.0	1050 / 930	54 / 48	330 / 300	49 / 21	480	50 ^c	✓	✓	✓	✓	✓	Food packaging
Terralene® LL 1101	0.92	0.70-0.85	290 / 310	37 / 32	675 / 685	50 / 150	130	90 ^c	✓	✓	✓	✓	✓	Shopping bags, waste bags, food packaging, laminates
Properties														
Properties	Density	MFR 190 °C / 2.16kg	Tensile Modulus	Tensile Strength	Tensile Strain at Break	Notched Impact Strength (Charpy)	Vicat A	Minimum Biobased Carbon Content	Biodegradable	Certified Compostable	Translucent	Natural Fibre Compound	Food Contact Compliance	Already established in these applications:
Unit	[g/cm ³]	[g/10 mm]	[MPa]	[MPa]	[%]	[kJ/m ²]	[°C]	[%]		[Industrial EN 13432]	[Home EN 13432]			
Standard	ISO 1183	ISO 1133	ISO 527	ISO 527	ISO 527	ISO 17911 eA	ISO 306							
Injection Molding														
Bio-Flex® F 6513	1.29	7.0-12.0	2600	46	21.5	7.6	130	70 ^b	✓	✓	✓	✓	✓	Toys, cosmetics accessories, technical parts, cutlery, drink stirrers
Bio-Flex® F 6514	1.29	17.0-22.0	2700	43	13	4	60	70 ^b	✓	✓	✓	✓	✓	General purpose, toys, cosmetics accessories, technical parts, mugs, measuring spoons
Bio-Flex® F 9533 WH	1.45	22.0-28.0	4600	50	6.6	2.6	63	85 ^b	✓	✓	✓	✓	✓	Toy figures, garden tools, mugs, pegs
Bio-Flex® S 1100	1.23	7.0-12.0	600	28	395	12	104	50 ^b	✓	✓	✓	✓	✓	Container lids
Bio-Flex® S 5630 WH	1.55	7.0-10.0	2160	32	9	3	105	60 ^b	✓	✓	✓	✓	✓	Toys, cosmetics accessories, technical parts, jars, drink stirrers
Bio-Flex® S 7514	1.34	25.0-30.0	3100	47	13	3.5	112	75 ^b	✓	✓	✓	✓	✓	General purpose, technical parts, containers, cutlery, coffee capsules, tooth brushes
Biograde® C 5508	1.27	18.0-25.0 ^a	2460	55	17	10.5	107	68 ^b	✓	✓	✓	✓	✓	Cases, jars, cutlery, ball pens, markers, lip liner pens, tooth brushes
Biograde® C 5509 CL	1.27	40.0-56.0 ^a	2320	48	15.5	7	100	60 ^b	✓	✓	✓	✓	✓	Transparent & technical parts, jars, containers, lipstick tubes, cosmetic pencils, ball pens
Biograde® C 9550 WH	1.67	11.0-15.0 ^a	4200	41	6.5	2	118	45 ^b	✓	✓	✓	✓	✓	Containers, cutlery, computer accessories
Fibrolon® P 7550	1.03	9.0-14.0 ^a	3250	22	3	3.3	139	30 ^b	✓	✓	✓	✓	✓	Technical covers, containers, cosmetics accessories, sandbox & beach toys
Fibrolon® S 7530	1.27	7.0-12.0 ^a	3850	37	3	3.5	105	75 ^b	✓	✓	✓	✓	✓	Sandbox & beach toys, pegs, tooth brushes, nail files
Terralene® HD 4527	1.07	13.0-15.0	1845	26	16	2.2	n.a.	95 ^b	✓	✓	✓	✓	✓	Toys, jars, caps, containers, lunch boxes
Terralene® LL 1505	0.919	7.0-8.5	340	10	>500	61.5	n.a.	50 ^b	✓	✓	✓	✓	✓	Container lids
Terralene® PP 3505	0.912	11.0-14.0 ^a	1100	25	95	6	n.a.	33 ^b	✓	✓	✓	✓	✓	Containers, bins
Sheet Extrusion / Thermofforming														
Bio-Flex® F 661 I	1.29	2.0-3.5	2740	47	21.5	7.2	130	70 ^b	✓	✓	✓	✓	✓	Food trays, coffee capsules, cups, coffee cup lids
Bio-Flex® F 671 I	1.30	2.0-5.0	2700	44	29	14	n.a.	70 ^b	✓	✓	✓	✓	✓	Food trays, plant labels, flower pots
Bio-Flex® F 6510	1.3	2.5-4.5	2600	47	19	7	60	70 ^c	✓	✓	✓	✓	✓	Sheets, Food trays, Coffee cup lids
Bio-Flex® S 7711	1.36	2.5-6.0	3300	49	24	5.2	112	70 ^b	✓	✓	✓	✓	✓	Coffee cup lids, flower pots
Terralene® PP 4732	1.15	1.2-1.6 ^a	1850	25	100	21	n.a.	33 ^b	✓	✓	✓	✓	✓	Trays, cups, plant labels
Straw Extrusion														
Bio-Flex® F 5710	1.29	2.5-4.5	2125	37	65	30	n.a.	60 ^b	✓	✓	✓	✓	✓	Straws, tubes, tree protections, cotton buds, balloon sticks
Bio-Flex® S 7711	1.36	2.5-6.0	3300	49	24	5.2	112	70 ^b	✓	✓	✓	✓	✓	Hollow profiles, pipes, tubes
Bio-Flex® F 6510	1.3	2.5-4.5	2600	47	19	7	60	70 ^c	✓	✓	✓	✓	✓	Straws, Profiles
Bio-Flex® F 6514	1.29	23	2700	43	13	4	60	70 ^c	✓	✓	✓	✓	✓	Straws, Profiles
Extrusion Coating														
Bio-Flex® F 6510	1.3	2.5-4.5	2600	47	19	7	60	70 ^c	✓	✓	✓	✓	✓	Paper coating
Bio-Flex® F 6514	1.29	23	2700	43	13	4	60	70 ^c	✓	✓	✓	✓	✓	Paper coating
Terralene® HD 2305	0.933	5.0-6.0	525	15	>500	31	n.a.	70 ^c	✓	✓	✓	✓	✓	Paper coating
Terralene® LL 1303	0.919	2.2-3.0	200	15	480	68	95	75 ^c	✓	✓	✓	✓	✓	Paper coating
Extrusion Blow Molding														
Bio-Flex® F 5710	1.29	2.5-4.5	2125	37	65	30	n.a.	60 ^b	✓	✓	✓	✓	✓	Bottles (up to 1.5 l)
Terralene® HD 3400	0.956	19.0-21.0 ^a	875	27	55	38	n.a.	95 ^b	✓	✓	✓	✓	✓	Bottles, cans
Terralene® PP 3402	0.922	1.0-1.7 ^a	1075	25	175	70	n.a.	33 ^b	✓	✓	✓	✓	✓	Bottles, cans
3D Printing (FDM) / Monofilaments														
Bio-Flex® 3D Clear	1.25	7.0-13.0	3450	63	10	n.a.	n.a.	90 ^b	✓	✓	✓	✓	✓	Filaments
Bio-Flex® F 7510	1.25	2.0-4.0	3000	55	15	3.5	58	80 ^b	✓	✓	✓	✓	✓	Filaments
Bio-Flex® S 7711	1.36	2.5-6.0	3300	49	24	5.2	112	70 ^b	✓	✓	✓	✓	✓	Filaments
Fibrolon® 3D Wood	n.a.	2.5-4.5	2900	47	6.5	4.4	n.a.	75 ^b	✓	✓	✓	✓	✓	Filaments
Fibrolon® 3D Bamboo	1.19	2.5-5.0	3200	47	7	4.2	n.a.	75 ^b	✓	✓	✓	✓	✓	Filaments
Fibrolon® 3D Cork	n.a.	2.5-5.0	2150	39	18	4.6	n.a.	75 ^b	✓	✓	✓	✓	✓	Filaments

^a Biobased carbon content measured according to ISO 16620 ^b Biobased carbon content calculated ^c Biobased carbon content measured according to ASTM D6866 ^d MFR measured at 190 °C with 5 kg load ^e MFR measured at 190 °C with 21.6 kg load ^f MFR measured at 230 °C with 3.6 kg load ^g MFR measured at 230 °C and 5 kg load ^h Certification Industrial Compostable possible on request