NaturePlast

BIOPLASTICS MATERIALS PORTFOLIO

2025

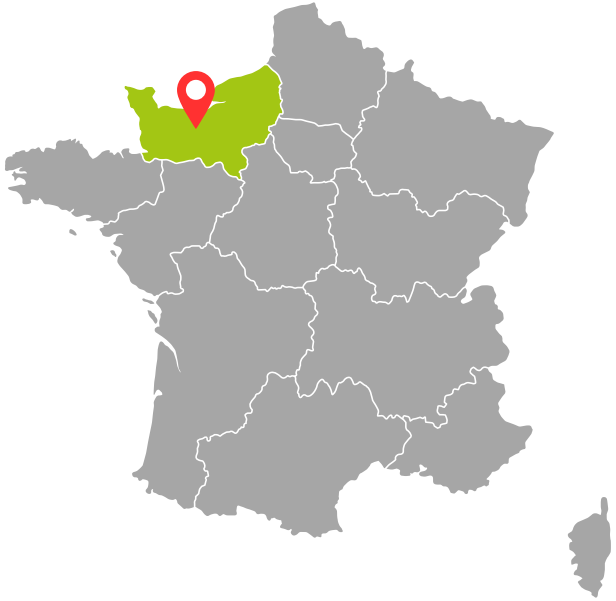
Who are we?

Since **2007, NaturePlast**, based in **France, Normandy** has established itself as a key player in Europe **in the development, production and distribution** of bio-based and/or biodegradable plastic pellets.

It specialises in supporting companies wishing to develop products based **on bioplastics.**

Our aims

- To support manufacturers in the use of biobased and/or biodegradable materials.
- To formulate and design materials that are right for you.
- Enhance the value of by-products from French industries.



*45 %

Production of compounds and biocomposites

*35 %

Distribution of raw materials

*15 %

R&D

*3 %

Custom grinding

*2 %

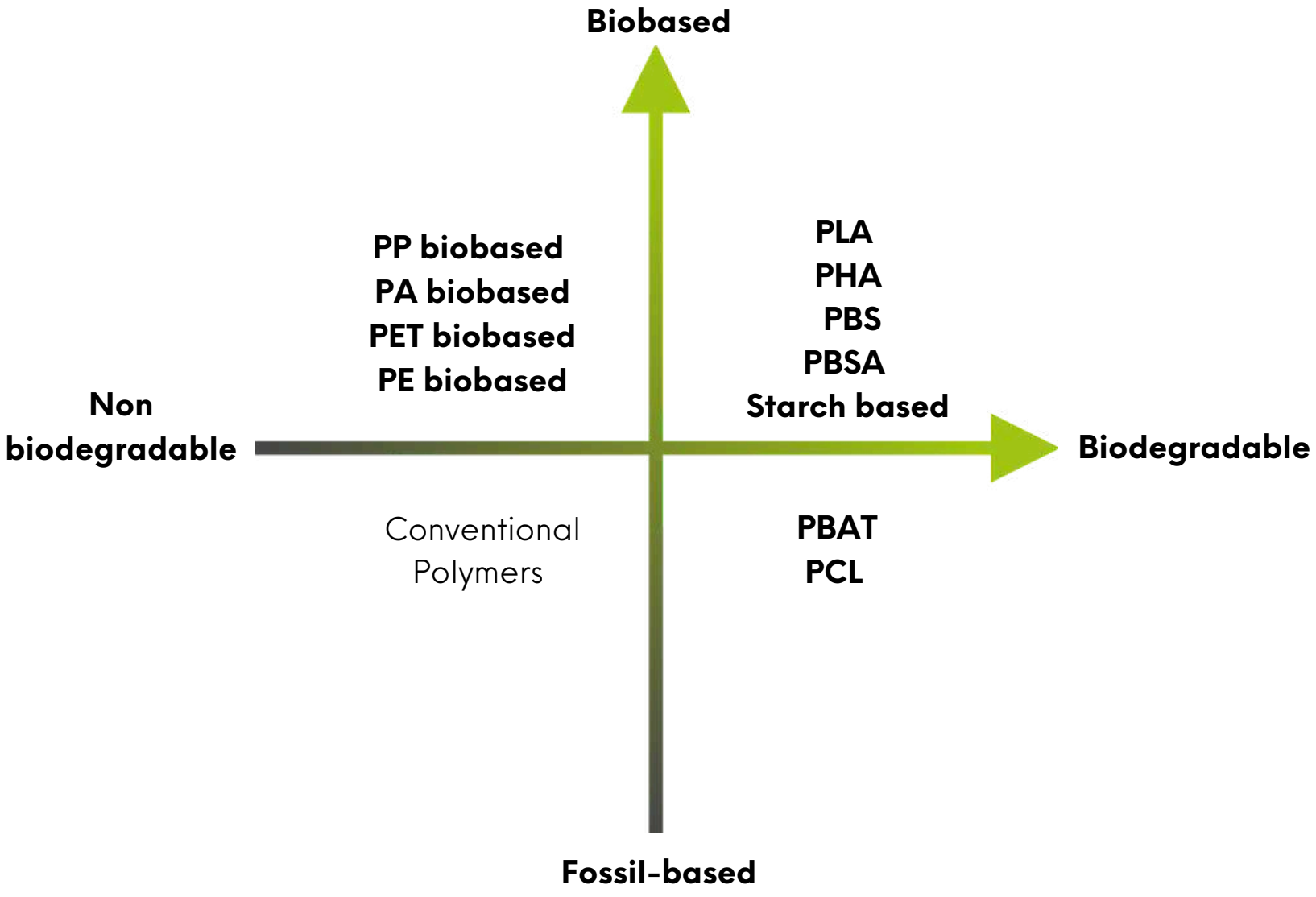
Training Studies

Our activities

*Breakdown of sales

Bioplastics Materials

The three main families of bioplastics by origin and end-of-life:



Application markets

Packaging

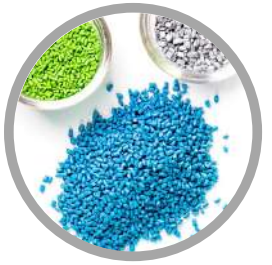
Sports & Leisure

Technical parts

Transportation

Construction

Bioplastics



Others

Consumer goods

Luxury industry

3D print

Agriculture
Horticulture

Contents

1 - Raw materials

2 - Bioplastics compounds

3 - Fibres and by-products biocomposites

Non-exhaustive list. Please contact us for more information.

Biodegradable range

		Grade	Biobased content (%)	Food contact	End of life	Tensile modulus (MPa)	Charpy impact unnotched (kJ/m²)	Thermal resistance (°C, HDT B)	MFI (g/10min; 190°C/2.16 kg)	Density	Transparency
INJECTION	PLA	PLI 211	100	✓	●	3 500	/	60	30	1,24	✓
	PHA	PHI 001	55	✓	●	860	45	45	/	1,25	✗
		PHI 002	96	✓	● ● ●	3 300	5	121	10 - 20	1,25	✗
		PHI 003	98	✓	●	4 200	5	134	5 - 15	1,25	✗
		PHI 011	100	✓	In progress	2 000	/	140	12 - 25	1,25	✗
	Biopolyester	PBI 003	51	✓	●	730	No Break	95	22	1,26	✗
		PBI 012	0	✓	● ● ● ●	300	/	51	7 (160°C)	/	✗
EXTRUSION	PLA	PLE 005	100	✓	●	3 500	20	61	23 (210°C /2.16 kg)	1,24	✓
		PLE 005-1	100	✓	●	3 500	21	55-60	8 (210°C /2.16 kg)	1,24	✓
		PLE 111	100	✓	●	3 500	/	60	10	1,24	✓
		PLE 111-1	100	✓	●	3 500	/	60	4	1,24	✓
		PLE 111-A	100	✓	●	3 500	/	60	4	1,24	✓
	PHA	PHE 005	100	In progress	● ● ● ●	/	/	/	4	1,23	✗
	Biopolyester	PBE 001	35	✓	● ● ●	290	No Break	63	5	1,24	✗
		PBE 003	51	✓	●	720	No Break	95	4 - 6	1,26	✗
		PBE 006	0	✓	● ● ●	85	No Break	90 (Vicat A)	4 - 6	1,26	✗

● Industrial compost ● Home compost ● Soil biodegradation ● Marine biodegradation

Non biodegradable range

		Grade	Biobased content (%)	Food contact	End of life	Tensile modulus (MPa)	Charpy impact unnotched (kJ/m²)	Thermal resistance (°C, HDT B)	Density	Transparency
INJECTION	PA	NP BioPA1010-201	100	✓	✗	1 700	No Break	171 (Vicat B)	1.05	✗
		NP BioPA11-251	98	✓	✗	1 280	No Break	145	1.03	✗
		NP BioPA11-252	45	✓	✗	1 622	No Break	135	1.01	Translucid
		NP BioPA11-253	98	✓	✗	1 280	No Break	133	1.03	✗
	Cellulose esters	ACI 002	45	✗	✗	/	/	79	1.27	✓
	PET	BioPET 002	20	✓	Classic PET recycling stream	2 400	/	70	1.35	✓
	PE	BioPE	95 - 100	✓	Classic PE recycling stream	Only available in compound form.				
	PP	BioPP	40	✓	Classic PP recycling stream	Only available in compound form.				

		Range	Biobased content (%)	Food contact	Shore	Charpy impact unnotched (kJ/m²)	Transparency
INJECTION EXTRUSION	ELASTOMERS	NP EL 209 range	20 to 84	Possible	50 A to 87 A	No Break	✗
		NP EL 210 range	29 to 46	Possible	82 A to 55 D	No Break	Possible
		NP EL 211 range	50 to 70	✗	72 A to 57 D	No Break	Possible

*non-exhaustive list

Compounds range

		Grade	Biobased content (%)	Food contact	Tensile modulus (MPa)	Charpy impact unnotched (kJ/m²)	Thermal resistance (°C, HDT B)	MFI (g/10min; 190°C/2.16 kg)	Density	Transparency
INJECTION	High temperature	NP HT 201	> 90	✓	3 620	38	118	50 - 60	1.24	✗
		NP HT 202	> 85	✓	2 400	77	120	39	1.23	✗
		NP HT 203	91	✓	3 200	38	118	17 - 23	1.24	✗
	Soft	NP SF 231	> 25	✓	195	No Break	50	36	1.22	✗
		NP SF 232	58	✓	1 600	No Break	67	6	1.27	✗
		NP SF 241	50	✓	1 600	No Break	48	13	1.23	✗
		NP SF 243	80	✓	2 000	35	55	5 - 10	1.24	✗
		NP SF 244	100	✓	3 200	45	/	32	1.17	✗
		NP SF 245	100	✓	2 600	138	/	24	1.16	✗
		NP SF 246	100	✓	1 800	No Break	/	17	1.21	✗
		NP SF 251	100	✓	1 560	68	/	31 (180°C/ 2.16 kg)	1.23	✗
	High fluidity	NP HF 201	> 90	✓	3 000	17	42	87	1.18	Translucid
		NP HF 231	49	✓	650	144	77	70	1.25	✗
EXTRUSION	High temperature	NP HT 101	> 90	✓	3 500	33	130	5	1.32	✗
		NP HT 102	> 90	✓	4 400	47	110	5	/	✗
		NP HT 103	> 80	✓	2 300	No Break	107	7	1.31	✗
	Soft	NP SF 137	51	✓	/	No Break	/	1	/	✗
		NP SF 141	> 85	✓	1 850	> 50	/	8	1.21	Translucid

Biocomposites range

Biodegradable - PLA

	Grade	Matrix	Filler	Incorporation rate (%)	Renewable content (%)	Food contact	Tensile modulus (MPa)	Charpy impact unnotched (kJ/m²)	Thermal resistance (°C, Vicat A50)	MFI (g/10min; 190°C/2.16 kg)	Density
Sea range	NPW SEA 241	PLA	**Scallop** inf 500 µm	20	100	X	/	9.3	59	33	1.36
	NPW SEA 242	PLA	**Scallop** 0.5 - 1 mm	20	100	X	/	6.6	57	66	1.42
Natural fibres range	NPW FIB 241	PLA	**Flax** inf 250 µm	20	100	X	/	6.7	64	14	1.23
	NPW FIB 242	PLA	**Flax** inf 1 mm	20	100	X	/	5.5	68	24	1.21
	NPW FIB 243	PLA	**Brewers' grains** inf 500 µm	20	100	X	/	5.6	58	56	1.23
	NPW FIB 244	PLA	**Brewers' grains** 0.5 - 1 mm	20	100	X	/	4.9	/	23	1.21
Fruits range	NPW VEG 240	PLA	**Grapes** inf 0.5 mm	20	100	X	/	5.6	55	43	1.23
	NPW VEG 241	PLA	**Grapes** 0.5 - 1mm	20	100	X	/	3.3	60	51	1.22
Shells and kernels range	NPW SHE 240	PLA	**Egg shell** inf 0.5 mm	20	100	X	/	7.3	58	62	1.37
	NPW SHE 241	PLA	**Egg shell** 0.5 - 1 mm	20	100	X	/	5.9	58	39	1.30

Biocomposites range

Non biodegradable - PP *exist in biobased PP

	Grade	Matrix*	Filler	Incorporation rate (%)	Renewable content (%)	Food contact	Tensile modulus (MPa)	Charpy impact unnotched (kJ/m²)	Thermal resistance (°C, Vicat A50)	MFI (g/10min; 190°C/2.16 kg)	Density
Sea range	NPW SEA 217	PP	**Scallop** inf 500 µm	20	20	X	/	22	151	15	1.04
	NPW SEA 218	PP	**Scallop** 0.5 - 1 mm	20	20	X	/	17	150	14	1.08
Natural fibres range	NPW FIB 213	PP	**Flax** 250 µm	20	20	X	/	13	153	11	0.95
	NPW FIB 214	PP	**Flax** inf 1 mm	20	20	X	/	9.5	155	5.2	0.97
	NPW FIB 215	PP	**Brewers' grains** inf 500 µm	20	20	X	/	13	149	11	0.96
	NPW FIB 216	PP	**Brewers' grains** 0.5 - 1 mm	20	20	X	/	12	152	9	0.97
Fruits range	NPW VEG 210	PP	**Grapes** inf 0.5 mm	20	20	X	/	12	151	12	0.97
	NPW VEG 211	PP	**Grapes** 0.5 - 1mm	20	20	X	/	9	152	12	0.97
Shells and kernels range	NPW SHE 210	PP	**Egg shell** inf 0.5 mm	20	20	X	/	16	148	15	1.04
	NPW SHE 211	PP	**Egg shell** 0.5 - 1 mm	20	20	X	/	13	151	15	1.04
Other by-products range	NPW BUILD 210	PP	**Brick** inf 300 µm	20	20	X	1 600	38	149	13	1

Biocomposites range

Non biodegradable - PA biobased

	Grade	Matrix	Filler	Incorporation rate (%)	Renewable content (%)	Food contact	Tensile modulus (MPa)	Charpy impact unnotched (kJ/m²)	Thermal resistance (°C, Vicat A50)	Density
Sea range	NPW SEA 250	PA 11	**Scallop** 0.5 - 1 mm	5	98	X	1 650	4.6	182	1.05
	NPW SEA 251	PA 11	**Scallop** 0.5 - 1 mm	20	98	X	2 100	3.2	182	1.11
	NPW SEA 252	PA 11	**Mussel** inf 100 µm	5	98	X	1 500	27	/	1.04
	NPW SEA 253	PA 11	**Mussel** inf 100 µm	20	98	X	1 800	16	/	1.09
	NPW SEA 254	PA 11	**Mussel** 0.5 - 1 mm	5	98	X	1 950	4.5	/	1.03
	NPW SEA 255	PA 11	**Mussel** 0.5 - 1 mm	20	98	X	1 950	3.1	/	1.14
Shells and kernels range	NPW SHE 250	PA 11	**Almond shell** 0.5 - 1 mm	5	98	X	1 350	9.3	182	1.02
	NPW SHE 251	PA 11	**Almond shell** 0.5 - 1 mm	20	98	X	1 750	6.7	182	1.01

Our 3 ranges of bioplastics

We offer bioplastics designed to meet the needs of manufacturers looking for alternatives to conventional plastics.Our portfolio is not exhaustive, please consult us.

Bioplastics raw materials

Distribution of a wide range of biobased and/or biodegradable plastics.

Compounds

Production of bioplastic compounds with optimised properties.

Biocomposites

Production of biocomposites from by-products (plant fibres, seashells, etc.).