



PACKAGING INDUSTRY





60 years of
Know-how



80% export of
our solutions



2,000
customers



Production
capacity of
110,000 ton/year



Exports to
more than
70 countries



25 production
lines

CREATING SOLUTIONS, SHARING EXPERTISE

SOFIPRIME

PP & PE
COMPOUNDS

LACOFLEX

TPE
COMPOUNDS

ECO-SOLUTIONS

BIODEGRADABLE &
COMPOSTABLE
COMPOUNDS

SOFIPRIME | ABOUT OUR PP/PE COMPOUNDS

The Sofiprime range of compounds has been specially formulated to meet the requirements of the packaging sector. They are thermoplastic polyolefinic compounds mainly intended for the injection industry. With our compounds it is possible to obtain an excellent barrier to oxygen and water vapor, making the product very competitive when compared to polymers with a much higher cost barrier (EVOH, PBT and aluminum). By using our compounds, it is also possible to avoid the use of laminated pouches that function as external packaging. Food contact approval: UE Regulation n. 9 10/2011 and its latest amendments described in accordance with the Regulation UE 2016/1416 of the Commission of 24 August 2016.

PP/PE COMPOUNDS FOR PACKAGING MATERIALS

 Code	Density (g/cm ³)	MFI (2,16kg/230°C) g/10'	Hardness (ShD15s)	Tensile modulus (Mpa)	Shrinkage (%)	OTR (CM ³ /M ² day)	Cost	Injection capsules	Additional Features
PPM02F	1,06	50	72	1900	0,8 - 1,1	31	••	✓	    
PPM03E	1,17	45	73	2500	0,6 - 1,0	16	••	✓	    
PPM03A	1,08	50	72	2100	0,6 - 1,0	23	••	✓	    
PPM30	1,04	50	71	2200	0,8 - 1,1	31	••	✓	    
PPHOMO	0,92	Broad range	70	1200 - 2000	1 - 2	50	•		  
HDPE	0,95	Broad range	64	900 - 1400	2 - 3	45	•		  
PBT	1,30	Broad range	75	2400	1,1 - 1,8	Almost 0	••••		   



COLOURABLE



FOOD
CONTACT



BARRIER TO
OXYGEN



BARRIER TO
VAPOR



RECYCLABLE

The new Lacoflex BMR compounds meet the requirements for applications under European Union Regulation No.10/2011. This new series has been specially developed for food contact applications with available grades from 50 to 80 Shore A , suitable for both injection molding and extrusion. Lacoflex BMR compounds are PVC free, BPA free, Phthalate free, latex free, and complies with REACH SVHC & RoHS. These grades are developed to address today's consumer market requirements; however, customized solutions can be built based on specific needs. Features: Soft touch, Flexibility & Recyclable



TPE COMPOUNDS

NO FILLER

 Code	Physical and Mechanical Properties										Chemical Properties•						
	Hardness Shore 15"	Density	Tensile strength Mpa	Tensile 100%	Tensile 300%	Tensile elongation %	Tear strength N/mm	Compression set 23°c/72h	Compression set 70°c/22h	Compression set 100°c/22h	UV Stability	Ozone	Heat ageing	Acid	Base	Water ageing	UL 94
BMR90-30	30 shA	0,89	7,0	0,6	1,3	900	25	20	45	70	4	5	4	4	4	4	HB
BMR90-40	40 shA	0,89	8,0	0,7	1,5	850	30	23	45	75	4	5	5	5	5	5	HB
BMR90-50	50 shA	0,89	8,3	1,3	2,1	850	30	23	47	75	4	5	5	5	5	5	HB
BMR90-60	60 shA	0,89	9,0	1,5	2,2	850	35	28	48	75	4	5	5	5	5	5	HB
BMR90-70	70 shA	0,89	11	2,2	3,1	800	40	37	50	80	4	5	5	5	5	5	HB
BMR90-80	80 shA	0,89	13	3,0	4,0	750	65	43	53	80	4	5	5	5	5	5	HB
BMR90-90	90 shA	0,89	16	5,0	6,0	700	75	45	55	80	4	5	5	5	5	5	HB

• Internal classification: 1 very poor, 2 poor, 3 fair, 4 good & 5 very good

TPE COMPOUNDS

LOW FILLER CONTENT

 Code	Physical and Mechanical Properties										Chemical Properties•						
	Hardness Shore 15"	Density	Tensile strength Mpa	Tensile 100%	Tensile 300%	Tensile elongation %	Tear strength N/mm	Compression set 23°c/72h	Compression set 70°c/22h	Compression set 100°c/22h	UV Stability	Ozone	Heat ageing	Acid	Base	Water ageing	UL 94
BMR100-30	30 shA	0,98	6,0	0,6	1,3	800	25	16	32	59	4	5	4	4	4	4	HB
BMR100-40	40 shA	0,98	6,5	0,7	1,5	800	30	17	35	60	4	5	5	5	5	5	HB
BMR100-50	50 shA	0,98	8,0	1,3	2,1	750	30	23	40	60	4	5	5	5	5	5	HB
BMR100-60	60 shA	0,98	9,0	1,5	2,2	750	35	24	42	60	4	5	5	5	5	5	HB
BMR100-70	70 shA	0,98	11	2,2	3,1	750	40	30	45	63	4	5	5	5	5	5	HB
BMR100-80	80 shA	0,98	12	3,0	4,0	750	65	37	47	68	4	5	5	5	5	5	HB
BMR100-90	90 shA	0,98	15	5,0	6,0	700	75	44	52	71	4	5	5	5	5	5	HB

• Internal classification: 1 very poor, 2 poor, 3 fair, 4 good & 5 very good

TPE COMPOUNDS MEDIUM FILLER CONTENT

 Code	Physical and Mechanical Properties										Chemical Properties*						
	Hardness Shore 15"	Density	Tensile strength Mpa	Tensile 100%	Tensile 300%	Tensile elongation %	Tear strength N/mm	Compression set 23°C/72h	Compression set 70°C/22h	Compression set 100°C/22h	UV Stability	Ozone	Heat ageing	Acid	Base	Water ageing	UL 94
BMR200-30	30 shA	1,08	5,0	0,6	1,3	800	20	16	33	63	4	5	4	4	4	4	HB
BMR200-40	40 shA	1,08	5,0	0,7	1,5	750	26	17	34	63	4	5	5	5	5	5	HB
BMR200-50	50 shA	1,08	6,0	1,3	2,1	750	27	20	40	64	4	5	5	5	5	5	HB
BMR200-60	60 shA	1,08	7,0	1,5	2,2	700	30	28	49	65	4	5	5	5	5	5	HB
BMR200-70	70 shA	1,08	8,0	2,2	3,1	700	35	30	50	67	4	5	5	5	5	5	HB
BMR200-80	80 shA	1,08	10	3,0	4,0	700	43	45	63	70	4	5	5	5	5	5	HB
BMR200-90	90 shA	1,08	12	5,0	6,0	600	65	47	65	78	4	5	5	5	5	5	HB

* Internal classification: 1 very poor, 2 poor, 3 fair, 4 good & 5 very good

TPE COMPOUNDS HIGH FILLER CONTENT

 Code	Physical and Mechanical Properties										Chemical Properties*						
	Hardness Shore 15"	Density	Tensile strength Mpa	Tensile 100%	Tensile 300%	Tensile elongation %	Tear strength N/mm	Compression set 23°C/72h	Compression set 70°C/22h	Compression set 100°C/22h	UV Stability	Ozone	Heat ageing	Acid	Base	Water ageing	UL 94
BMR300-30	30 shA	1,18	5,0	0,6	1,3	800	20	18	35	63	4	5	4	4	4	4	HB
BMR300-40	40 shA	1,18	5,0	0,7	1,5	750	20	20	37	63	4	5	5	5	5	5	HB
BMR300-50	50 shA	1,18	6,0	1,3	2,1	750	20	23	40	64	4	5	5	5	5	5	HB
BMR300-60	60 shA	1,18	7,0	1,5	2,2	730	25	28	49	66	4	5	5	5	5	5	HB
BMR300-70	70 shA	1,18	7,0	2,2	3,1	700	35	38	52	70	4	5	5	5	5	5	HB
BMR300-80	80 shA	1,18	8,0	3,0	4,0	700	40	47	65	72	4	5	5	5	5	5	HB
BMR300-90	90 shA	1,18	9,0	5,0	6,0	600	65	50	68	80	4	5	5	5	5	5	HB

* Internal classification: 1 very poor, 2 poor, 3 fair, 4 good & 5 very good



The plastics industry has undergone major changes in recent years, mainly due to the growing awareness of consumers who are increasingly looking for sustainable and environmentally friendly solutions. This trend has encouraged the development of innovative materials, leading to a circular conception of the economy, as an alternative to the traditional linear economy.

Cabopol has at its disposal a set of sustainable solutions, which promote the development of the planet and the preservation of its environment. At Cabopol, offering environmentally friendly compounds has been defined as The new standard.



BIODEGRADABLE
& COMPOSTABLE
COMPOUNDS

BIOMIND | BIODEGRADABLE & COMPOSTABLE COMPOUNDS



Biomind is Cabopol's brand for biodegradable and compostable compounds. Produced from compostable substances of renewable origin, this compound, under ideal conditions of temperature and humidity, becomes humus, fertilizing the land, contributing to a sustainable consumption.

Biomind compounds offer the possibility to minimize dependence on oil and, in this way, the consumer can choose an environmentally friendly product, capable of reducing pollution levels for future generations. Biomind compounds can be used in several applications, such as: Capsules, shopping bags, waste bags, film, packaging, nets, disposable tableware, etc.

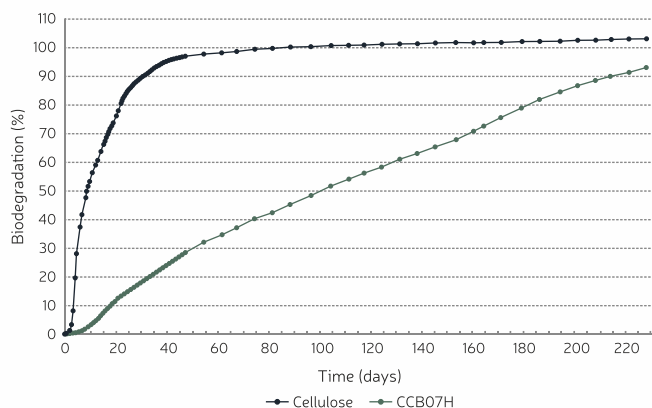
WHAT IS BIODEGRADABLE?

Biodegradable means that a compound is metabolized by the living microorganism present in the environment, that convert it in CO₂ and water. By other words microorganism feeds on the Biomind compounds and transform it in CO₂ and water, leaving no toxic substances to the environment. The EN 14855-1 define the conditions to ensure that a compound is biodegradable.

WHAT IS COMPOSTABLE?

To be classified as compostable, in first place is mandatory that is also biodegradable, which means all compostable materials are also biodegradable, but the opposite could not be true. Additionally it must be also free from toxic metals and harmful substances after composting.

Finally, 90% of mass product must disintegrate in small pieces smaller than 2mm, within a maximum time defined in EN13432 for European markets or ASTM6400 for USA markets.



Evolution of carbon dioxide (Co₂), during an EN14855-1 test, where microorganisms feed on Biomind CCB07H and transform it in CO₂, which means that more than 90% of CCB07H weight is converted in CO₂ in 229 days under Home composting condition.

HOME COMPOSTABLE

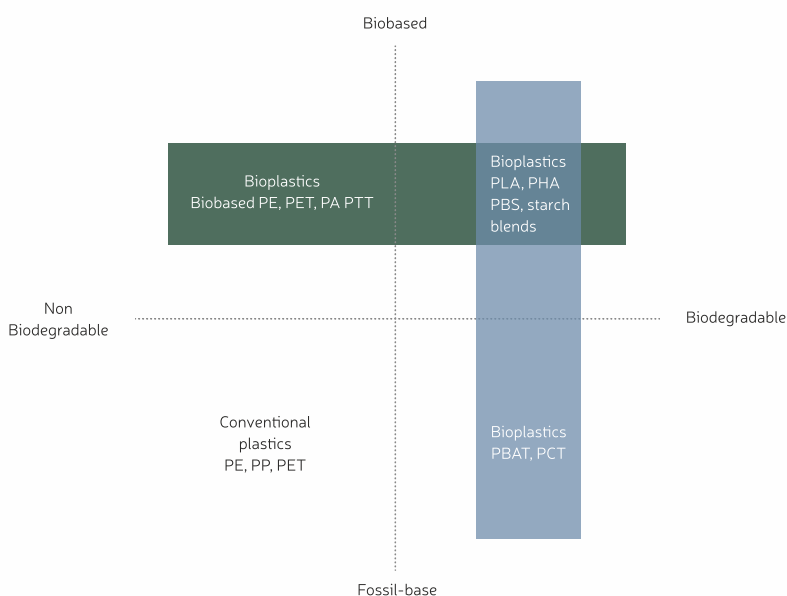
It can be composted in small composters in the garden, where the temperature barely reaches 30°C, because it does not have enough decomposing organic material to have the strength to increase the temperature above 30°C.

INDUSTRIAL COMPOSTABLE

It can be composted in municipal facilities, where the composting process is done with a large amount of decomposing organic matter that, due to the action of microorganisms that feed on the waste, can easily reach temperatures up to 75°C, conditions that allow the beginning of biodegradation in compostable plastics and the speed of this process.

BIOBASED & COMPOSTABLE

These are two different concepts. The concept of Biobased, also known as renewable content, is used only to quantify the percentage of carbon present in the compound that came from plant origin. It does not take into account whether the polymer is compostable or not. Thus, some polymers are 100% Biobased, but are neither compostable nor biodegradable, others are 100% compostable and at the same time 100% Biobased. Cabopol can supply 100% compostable compounds with a renewable content that can range from 5% to more than 80%.



KEY APPLICATIONS

Biomind is a family of completely biodegradable and compostable compounds that can be used to provide low environmental impact solutions for everyday products

Code	Film	Bio content >30%	Injection capsules	Injection cutlery	Thermoforming Extrusion	Blow Molding	Transparent	Features
CM010	✓	✗	✗	✗	✗	✗	✗	Industrial compostable
CM30T	✓	✓	✗	✗	✗	✗	✓	Industrial compostable
CCB07H5	✗	✓	✓	↑↑	✗	✗	✗	Home compostable
CCB02E4	✗	✓	✓	✓	✗	✗	✗	Industrial compostable
BTF04	✗	✓	✗	✗	✓	✗	✗	Industrial compostable
CCB02E5	✗	✓	✓	✓	✗	✗	✗	Industrial compostable

- ✓ Recommended use
- ✗ Not recommended
- ↑↑ Secondary application
- ? Not tested

BIOMIND | SUSTAINABILITY WITHOUT COMPROMISING PERFORMANCE

Code	Density	Tensile strength Mpa	Tensile modulus MPa	Elongation at break	Impact resistance (kJ/m2)	MFI cm ³ /10'	OTR (CM ³ /M ² day)	WVTR (g/m2.24h)	Mould temperature annealing	Transparency	Heat resistance	HDT (°C)	Renewable content	Injection molding	Blown film	Thermoforming	Ok Compost	Home Compost	Additional Features
CM010	1,35	18	300	350%	Doesn't break	5	-	-	-	Translucent	<60	-	~15		✓		✓		Biodegradable, Food Contact, Barrier to Oxygen
CM30T	1,24	25	160	500%	Doesn't break	3	-	-	-	Translucent	<60	-	~5		✓		✓		Biodegradable, Food Contact, Barrier to Oxygen
CCB07H5	1,46	17	1000	250%	57	17	8,7	6,2	20 - 30	Opaque	85 - 90	71	~35	✓		✓		✓	Biodegradable, Food Contact, Barrier to Oxygen, Industrial Compostable
CCB02E4	1,45	32	2850	3%	44	70	3,7	-	20 - 40	Opaque	90 - 100	88	~60	✓			✓		Biodegradable, Food Contact, Barrier to Oxygen, Industrial Compostable
BTF04	1,37	30	1900	<10%	60	9	-	-	-	Opaque	85 - 90	-	~60			✓	✓		Biodegradable, Food Contact, Barrier to Oxygen, Industrial Compostable
CCB02E5	1,45	40	3600	2%	27	70	3,7	-	20 - 40	Opaque	90 - 100	78	~75	✓			✓		Biodegradable, Food Contact, Barrier to Oxygen, Industrial Compostable



COLOURABLE



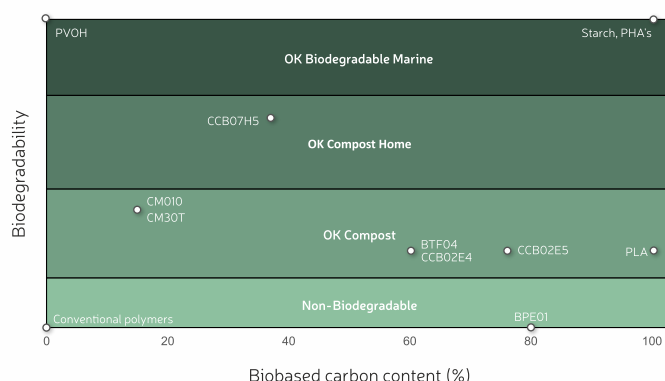
FOOD CONTACT



BARRIER TO OXYGEN

BIOMIND GRADE SLATE

We have developed innovations in the field biodegradable & compostable thermoplastics that meet the highest standards. All grades of Biomind are certified by certification bodies in accordance with the main European and international standards. Ok Compost Home: For this grade, Cabopol offers the CCB07H5 series, that provides domestic compostability with up to 40% biobased carbon content. Ok Compost: For this grade, Cabopol offers the CM020T, BTF04 & CCB02E4 series, that provides industrial compostability with a biobased carbon content ranging from 60% to 80%.



COLOURING INKS & PRINTING

Biomind compounds can be easily coloured with biodegradable colour masterbatch, based on PLA, PBAT, PBS or other bases (please contact for technical advice).

Materials manufactured using Biomind compounds can be printed using water-based or solvent (alcohol) based inks.

BIO COMPOUNDS CERTIFICATIONS

Most Biomind products have Approval for Food Use under European Union legislation, which means that a statement of conformity with these regulations can be issued if required by customers.

Also, Biomind compounds can be certified to EN 13432, granting the biodegradation in composting conditions.

BIOMIND FOR COFFEE CAPSULES

Properties of Biomind solutions for coffee capsules:

- Good barrier to oxygen and aroma
- Home Compostability
- Industrial Compost
- Easy processing for injection molding
- Fast cycle time
- Mechanical properties comparable to PP

DIN CERTCO
(7W2067)



Vinçotte
(S261)



Certification according to Biodegradation ISO 13432					
Logo	Certification	Temperature	Biodegradation (90% conversion in CO ₂)	Disintegration (90% pass 2mm sieve)	Cabopol Compounds
	Industrial composting	50°C - 75°C	6 months	12 weeks	CCB02E4 CCB02E5 BTF04 CM010 Certified Starting soon Not certified Certified
	Home composting	Maximum 30°C	12 months	6 months	CCB07H5 On going
	Biodegradable in soil	20°C - 25°C	24 months	Not required	Developmental stage
	Biodegradable in fresh water	20°C - 25°C	56 days	Not required	Developmental stage
	Biodegradable in ocean	20°C - 25°C	6 months	12 months	Developmental stage
Certification according to Biobased content (Non Biodegradable nor Compostable)					
	Ok Biobased		* Between 20% and 40% biobased content ** Between 40% and 60% biobased content *** Between 60% and 80% biobased content **** More than 80% biobased content		Developmental stage

WHY BIOMIND?

Sustainability: Biomind helps to reduce the usage of fossil resources and reduce the carbon footprint.

Circular economy: Biomind products are an effective route to help circular economy strategy, mainly in difficult to recycle packages (ex. Coffee capsules, food bags).

Source: Biomind don't use crops that can be used to produce food.

Land fill waste reduction: With Biomind helps to reduce the amount of residues send to land fill, since it can be composted and reused as agriculture fertilizer.

