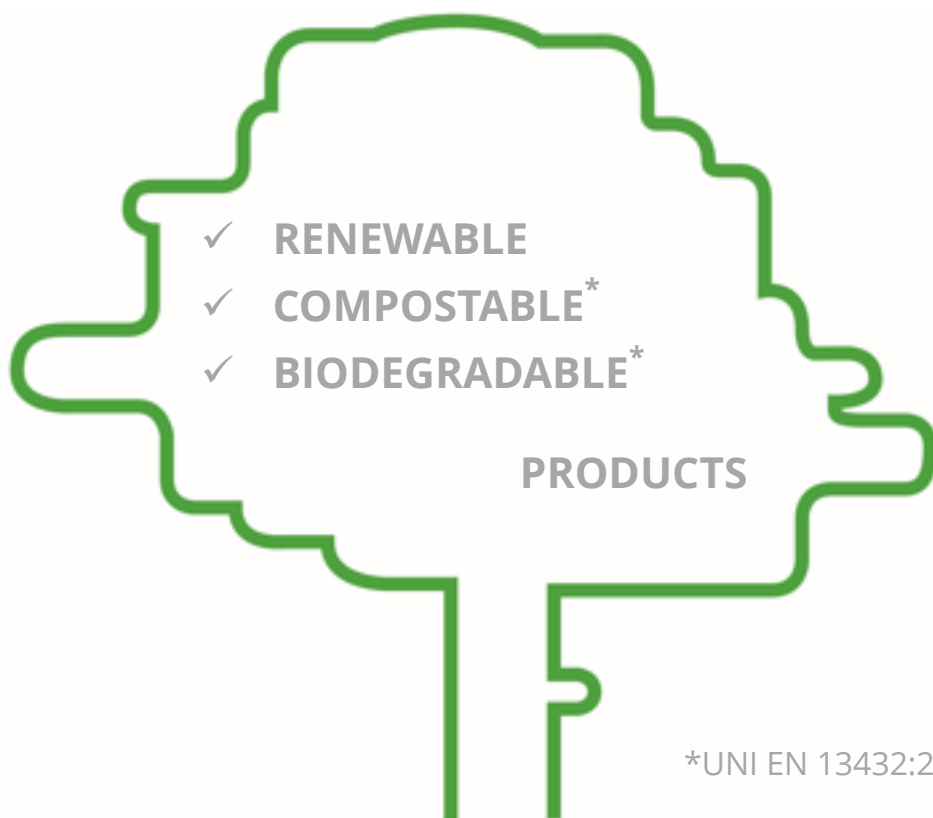




Passion for packaging

IipBio & FIBRAware

manual



- ✓ RENEWABLE
- ✓ COMPOSTABLE*
- ✓ BIODEGRADABLE*

PRODUCTS

*UNI EN 13432:2002

TO GET THINGS STRAIGHT...

compostable or biodegradable ?

These two terms, often confused for synonyms, in fact have a substantial difference that must be known in order to avoid errors when making **separate waste collection**.

The difference lies in time. **A biodegradable element is in fact not automatically compostable.**

To clarify, let's start from the definition: **biodegradable** is defined as any material that can be broken down by bacteria, sunlight and other natural physical agents into simple chemical compounds such as water, carbon dioxide and methane. A process that involves a multitude of materials, and that can be of long degradation, depending on the material. However, the European norm EN 13432:2002 establishes that to be defined as biodegradable, a product must decompose to 90% within **6 months**.

Instead, it is defined **compostable** (transformable into compost, a natural fertilizer) that material which is not only biodegradable but also disintegrating and whose decomposition process takes place in **less than 3 months**.

biobased %



BIOBASED= made wholly or to a significant part from biomass, renewable (non-fossil) resource.
Just because a plastic product is biobased does not necessarily mean the product is biodegradable or compostable

TO GET THINGS STRAIGHT...

EN 13432

The European norm **EN 13432** is a harmonized standard of the European Standardization Committee relating to characteristics that a material must possess in order to be able to define itself biodegradable or compostable. The term "compostable" refers to rules related to the non-toxicity of the decomposed material if dispersed in nature.

According to EN 13432, a **material to be defined as "compostable", must have the following characteristics:**

- degrade at least 90% in 6 months if subjected to an environment rich in carbon dioxide
- if in contact with organic materials for a period of 3 months, at least 90% of the mass of the material must be made up of fragments smaller than 2 mm
- the material must not have negative effects on the composting process
- low concentration of heavy metals added to the material
- pH values within the established limits
- saline content within the established limits
- concentration of volatile solids within the established limits
- concentration of nitrogen, phosphorus, magnesium and potassium within the established limits



TO SPECIFY...

COMPOSTABILITY'

WHAT IS COMPOSTABILITY?

1

The ability of an organic material to transform into compost through the composting process.



2

Compost is the final product of the biodegradability of the starting organic materials.



3

The organic materials (usually waste) become compost through their disintegration and aerobic biodegradation (i.e. in the presence of oxygen).



4

The mature compost looks like a fertile soil is rich in organic matter and used as fertilizer.



Source of chart WWW.MATERBI.COM

COMPOSTABLE



DECLARED **COMPOSTABLE PRODUCTS** SHOULD REPORT ON THE PACKAGE THE LOGO OF THE COMPOSTABILITY CERTIFICATION AND ITS LICENSE NUMBER.

TO SPECIFY...

BIODEGRADABILITY

WHAT IS BIODEGRADABILITY?

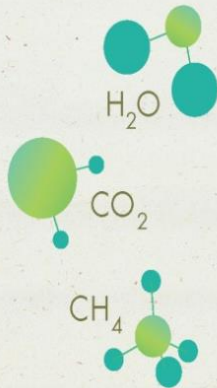
1

The biodegradability and the ability of substances and organic materials to be degraded into more simple substances through the enzymatic activity of microorganisms.



2

When the biological process complete it has totally transformed the starting organic substances into simple inorganic molecules, water, carbon dioxide and methane.



3

The phenomenon of biodegradation is part of the natural cycle of life on earth, focused on carbon.



4

Thanks to the activity of photosynthesis in plants and algae and the energy of the sun, carbon dioxide is removed from the atmosphere to synthesize sugars and substances used by plants to develop and grow.



Source of chart WWW.MATERBI.COM

TO SPECIFY...

BIODEGRADABILITY

WHAT IS BIODEGRADABILITY?

5

Through the food chain, matter and energy pass from the plants to herbivores and from these to carnivores. On the death of plants and animals, microorganisms feed on the organic material with processes requiring water and carbon dioxide into the atmosphere, closing the loop.



6

By mimicking these natural processes, the organic waste from human activities can be removed by biodegradation; it is possible to identify the ideal environment in which the phenomenon may develop better, in a length of the process time that is both industrialized and compatible with the rate of production of organic waste.



7

In nature, all organic waste has its biodegradation time: straw and wood will take more time than starch and cellulose. In cold and dry environments, the biodegradation processes will be slower than in hot and humid conditions.



8

The rate of biodegradation is influenced by the chemical nature of the substance or material and by the environment. The environments of industrial composting and anaerobic digestion provide for high rates of biodegradation.

Source of chart WWW.MATERBI.COM

TO SPECIFY...

BIODEGRADABILITY

WHAT IS BIODEGRADABILITY?

9 In composting and anaerobic digestion, one can also treat the articles (for example of biodegradable plastic) that have a biodegradation speed compatible with such treatments.

10 In the case of composting you are obtaining mature compost (which is a fertilizer), in the case of anaerobic digestion (followed by stabilization in composting) biogas is obtained (and therefore energy) along with compost.

11 Soil and other biologically active environments are where some materials can biodegrade completely, a property that can be exploited in specific applications such as mulch film.

MATER-BI

Source of chart WWW.MATERBI.COM

COMPOSTABLE MATERIALS...

BIOPOLYMERS

PLA

Polymers are large organic molecules made up of units that recurs along the carbon chain: they can be natural (BIOPOLYMERS) or synthetic (SYNTHETIC POLYMERS).

PLA (Polylactic Acid) is a biopolymer that derives from 100%renewable resources of vegetable origin (from corn or cassava starch, sugar cane or beet) that are used to obtain sugar molecules.

Starch (glucose) is extracted from plants and thanks to the action of enzymes and through hydrolysis glucose is converted into dextrose. Microorganisms activate dextrose fermentation to obtain lactic acid. A patented process transforms lactic acid into lactide monomer.

The polymerization process binds these monomers forming a polylactide polymer chain. The final form is PLA granules



The PLA INGEO® that ILIP uses for the realization of its compostable products is supplied by

 NatureWorks

COMPOSTABLE MATERIALS...

BIOPLASTICS

MATER-BI®

MATER-BI is an innovative material created by NOVAMONT and is part of a family of completely biodegradable and compostable bioplastics used for the realization of solutions and products for everyday life with reduced environmental impact. Mater-Bi consists of a blend of different components, some of which are from renewable resources.

MATER-BI contains:

- CORNSTARCH. Novamont declares that it is not genetically modified, is cultivated in Europe with traditional agricultural practices, and that no deforested land or virgin soils are used for its production.
- VEGETABLE OILS. Novamont declares that the vegetable oils used to produce the main raw materials of third-generation MATER-BI derives from non-transgenic crops other than palm and soy, which require little irrigation.
- MINERAL FILLER



MATER-BI®



Mater-bi is not a polymer but a Compound whose percentage of biobased biopolymers is around 50%.
ILIP BIO tableware made of Mater-Bi has a high temperature resistance and can also be used for hot drinks and foodstuff up to a temperature of 90°C (heat-sealable plates).

I MATERIALI COMPOSTABILI...

BIOPLASTICS

GAIA BIODOLOMER®

Biodolomer® is a high-quality mineral filled biomaterial compostable and biodegradable, containing renewable resources.

Bio[®]
dolomer



GAIA
BioMaterials - for a humane world

*Biodolomer® is certified compostable according to the EN13432 standard

Renewable materials in Biodolomer®:

- Calcium carbonate
- Sugar cane
- Rape seeds



Why calcium carbonate?

Calcium carbonate contributes to the earth's natural fertility, that is why GAIA adds calcium carbonate in BIODOLOMER®.

Calcium carbonate contains traces of minerals like silica which also improves growth. Silica gives nutrition, mechanical strength, and resistance against fungal diseases.

In 2016, Gaia BioMaterials, in a joint partnership, received EU funds from the LIFE programme for a 30 MSEK project in order to show how fossil-based and energy intensive plastics and packaging materials can be replaced by Gaia BioMaterials renewable and biodegradable biomaterial Biodolomer®



GAIA - BIODOLOMER



ILIP BIO cutlery made from BIODOLOMER® have a high temperature resistance and can also be used for hot foodstuff up to a temperature of 70°.

BIODEGRADABLE MATERIALS...

RAW MATERIAL FROM RENEWABLE SOURCES

CELLULOSE PULP



Cellulose is one of the most important polysaccharides. It consists of a large number of diglucose molecules joined together by a β -glycosidic bond. It is mainly contained in vegetables. The raw material used for the production of ILIP Bio pulp plates is bagasse, the sugar cane fiber.

PAPER

Paper is a material consisting mainly of vegetal raw materials, joined by felting and dried. Paper can be coated, with compostable plastic, or uncoated "free from plastic".



WOOD



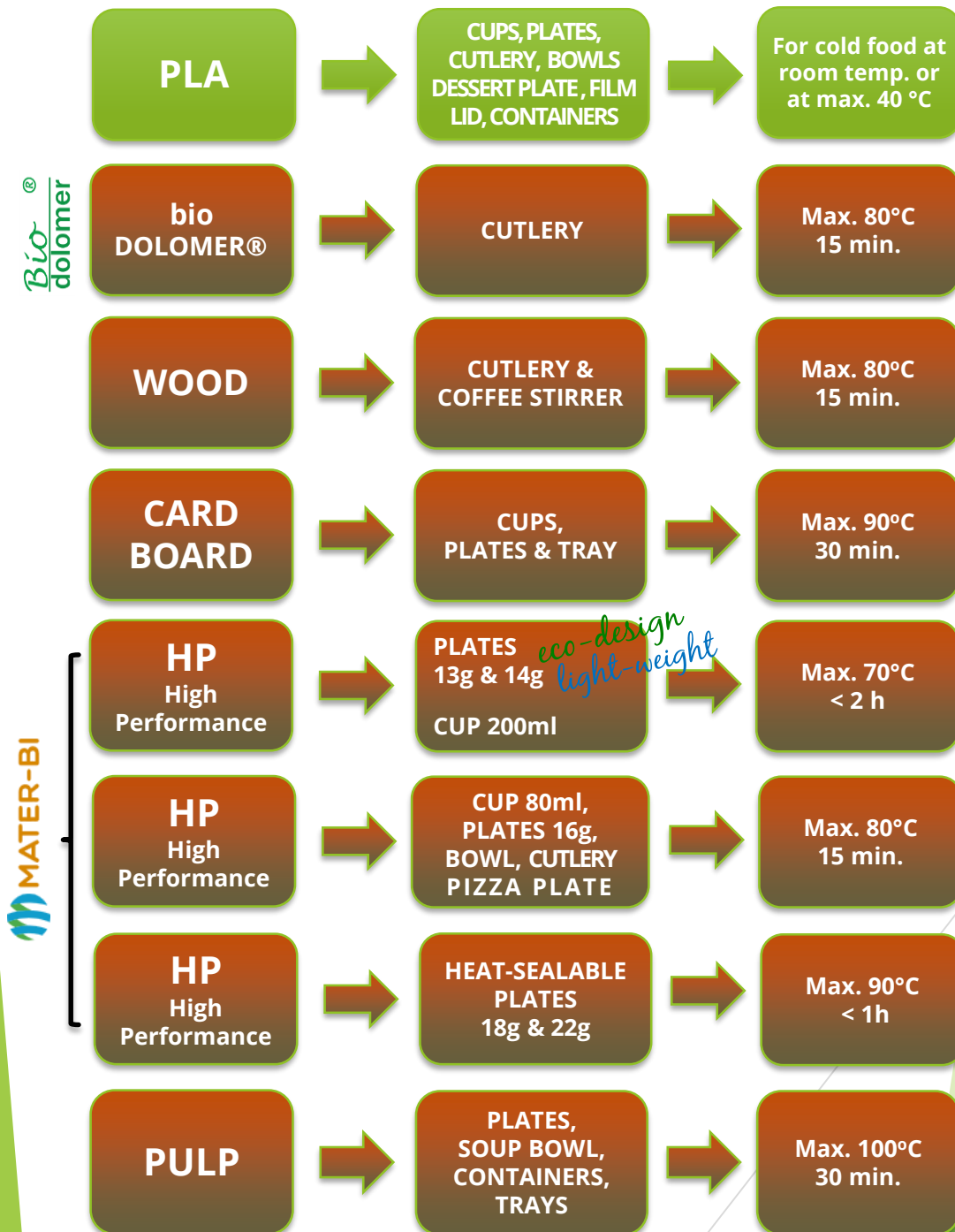
The wood used for the production of ILIP Bio wooden cutlery is birch from responsibly managed forests that are FSC certified (COC - Chain of Custody).



The FSC certification is internationally recognized and its purpose is the correct forest management and the traceability of derived products. The FSC® mark identifies products containing wood from forests that are managed correctly and responsibly according to strict environmental, social and economic standards.

PRODUCT FEATURES...

RESISTANCE TO TEMPERATURES



PRODUCT FEATURES...

INSTRUCTIONS FOR SHIPMENT AND STORAGE OF PLA PRODUCTS

PLA products are sensitive to high temperatures. During the summer period it is necessary to consider transports in insulated trucks and their storage in warehouses with suitable temperatures.



- **AVOID HIGH TEMPERATURES**

- Mark out on the boxes "product sensitive to temperature"
- Always specify the routes, shipping times, delivery dates in order to effect transports in the coolest parts of the day
- Choose insulated covers or refrigerated means of transport
- Stock under 105°F/40°C



- **DO NOT LEAVE UNDER THE DIRECT SUNLIGHT**

- Mark out on the boxes "product sensitive to sunlight"
- Plan just-in-time deliveries for packaging of fruit and vegetables



- **STOCK ON LOWER RACKS**

- Always stock in the cooler places of the warehouse
- Open the mean of transport immediately after arrival
- Do not stock near spotlights or heating points
- avoid stocking under metallic roofs or in places lacking in air circle



- **HANDLE WITH CARE**

- Do not leave the product loaded for long periods
- Choose the truck and shipping accessories with adequate insulated roofs
- Load and ship during the coolest part of the day
- Place the material in ad adequate place immediately after its delivery
- Ship and stock in white corrugated cartons

THE CERTIFICATIONS...

BIODEGRADABLE PRODUCTS

PAPER, PULP AND WOOD

Materials of natural origin, such as wood, wood fiber, starch, paper pulp...and relevant packaging made from these materials, are considered "biodegradable" without the need of further tests or certificates.

For example, products made of cellulose pulp (bagasse) or uncoated paper plates are included in this definition.

Instead, plates and cups coated with compostable plastic, do NOT fall into the category mentioned above and must be subjected to the European norm EN 13432.



EN 13432



The European Norm **EN 13432**, harmonized by the European Committee, determines the characteristics that a material must possess in order to be defined biodegradable and/or compostable. The term "compostable" refers to rules related to the non-toxicity of the decomposed material if dispersed in nature.

THE CERTIFICATIONS...

COMPOSTABLE PRODUCTS



The TÜV AUSTRIA group - internationally at the forefront in terms of quality, energy, environment, safety and product - in 2017 acquires the OK COMPOST certification mark and scheme from the Belgian entity Vinçotte nv. The Group's services are therefore expanded with a new product certification, which labels compostable products.



The Seedling logo is a reliable label for compostability. Along with the certification number printed on the product, the logo provides transparent information on the disposal of the packaging, thus gives assistance in the purchase of the product. The certification process is offered by the Belgian certifier TÜV Austria Belgium and by the German certifier DIN CERTCO.



The brand mainly known in Italy meets the needs of the members of CIC (Italian Composting Consortium) to clearly identify compostable products. Along with the license number the mark allows you to identify compostable materials and products.

INDUSTRIAL COMPOSTABLE



The certifiers issue the **INDUSTRIAL COMPOSTABLE** certification for products that meet the requirements of **the European Standard EN 13432 of 2002** in industrial composting processes (60°C and 90% Relative Humidity). To obtain the certification, the product must meet stringent requirements set by the standard and must be subjected to accurate laboratory analysis.

THE ILIP LICENCES

COMPOSTABLE PRODUCTS OF OWN PRODUCTION

CUPS, PLATES & CONTAINERS IN PLA



ILIP S.R.L.
007-P1096

Cup 80cc IN M-BI



ILIP S.R.L.
137-P1096

PLATES IN M-BI



ILIP S.R.L.
140-P1096

CUPS IN PLA



compostable

7P0118

CONTAINERS IN PLA



compostable

7P0103

CUPS & PLATES IN PLA & M-BI



compostable

7P0646

CUP 200ml made of MATER-BI



compostable
7P2398



PRODUCT FEATURES...

COMPLIANCE WITH FOOD CONTACT REGULATIONS OF PLA, MATER-BI® and BIODOLOMER®

COMPLIANCE WITH FOOD CONTACT
GLOBAL OR SPECIFIC
MIGRATION ANALYSIS



INTENDED USE

Internal tests simulate the intended use of finished product that must maintain its mechanical features and original geometry

ILIP BIO PRODUCTS IN PLA:

based on their intended use, temperature and conditions of use of products in PLA are max. 40°C or room temperature for prolonged periods of time.

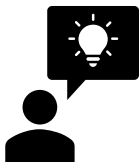
ILIP BIO PRODUCTS Biodolomer:

based on their intended use, temperature and conditions of use of the products are 80°C for 15 minutes.

ILIP BIO HIGH PERFORMANCE PRODUCTS (Mater-bi):

based on their intended use, temperature and conditions of use of HP products are 70°C for 2 hours (lightweight & ecodesing)- max. 80°C for 15 min. and max. 90°C for a period less than 1h.

ILIP Bio



The use of **compostable and renewable** materials makes IlipBio the most advanced solution in terms of quality and **environmental sustainability** with the guarantee and the security of compliance to the norms of compostability and food contact.

PRODUCT FEATURES...

COMPLIANCE WITH FOOD CONTACT REGULATIONS OF PULP, PAPER & WOOD

**COMPLIANCE WITH FOOD
CONTACT**
GLOBAL OR SPECIFIC
MIGRATION ANALYSIS



INTENDED USE

Internal tests simulate the intended use of finished product that must maintain its mechanical features and original geometry

ILIP BIO PULP PRODUCTS:

based on their intended use, temperature and conditions of use of products made of pulp are max. 100°C for 30 minutes.



ILIP BIO PRODUCTS MADE OF PAPER:

based on their intended use, temperature and conditions of use of products made of paperboard and wood are max. 90°C for max. 30 min.

ILIP BIO PRODUCTS MADE OF WOOD:

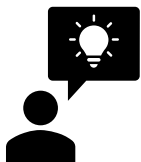
based on their intended use, temperature and conditions of use of products made of paperboard and wood are max. 80°C for max. 15 min.

DISPOSAL OF THE PRODUCT AFTER ITS USE...

END OF LIFE: DIFFERENCES BETWEEN PLASTICS AND BIOPLASTICS



ILIP & BIOPLASTICS



Since 2004 Ilip has been converting **bioplastics** to make packaging and containers to serve and pack fresh food products. All these items are **certified** and comply with **the European standard EN13432**. The life of these products ends with **organic recycling** (industrial composting) when appropriate and available and the result of this process is **compost**.

PACKAGING & ENVIRONMENTAL LABELING


CLEAR INFORMATION CONFORM TO REQUIREMENTS

Our goal is to provide correct, clear and compliant information to Italian and European regulations so that the consumer can make his conscious choice in purchasing the product.

| DIFFERENZIARE I RIFIUTI / WASTE SORTING | |
|--|--------------------------------------|
| Che cos'è? / What is it? | Dove smaltire / Where to dispose of? |
| FILM CONFEZIONE PACKAGING FILM 2 HD-PE | RACCOLTA PLASTICA PLASTIC WASTE |
| CONTENITORE CONTAINER 21 PAP | RIFIUTO ORGANICO* ORGANIC* WASTE |


*Verifica con il tuo Comune o gestore locale le modalità di conferimento e raccolta dei rifiuti.
*Check with your municipality or local waste manager how to deliver and collect waste.


CONDITIONS OF USE:




MAX. 100°C
30 min.

NOT SUITABLE FOR HEATING IN THE TRADITIONAL OVEN






compostable



Verifica con il tuo Comune/Castello
Località le modalità di conferimento
e raccolta dei rifiuti




RENEWABLE RESOURCES BIOPLASTICS FEEDSTOCK

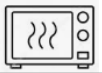
ORGANIC WASTE COMPOST KOMPOST

ILIP BIO

PRODUCED IN ITALY



SUITABLE FOR HEATING IN THE MICROWAVE



*UNI EN 13432:2002

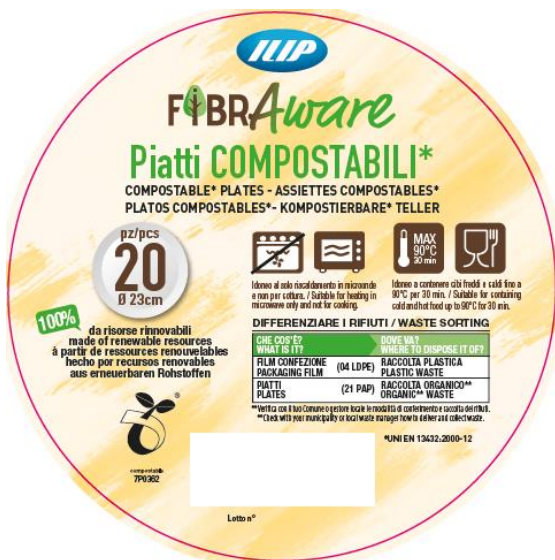
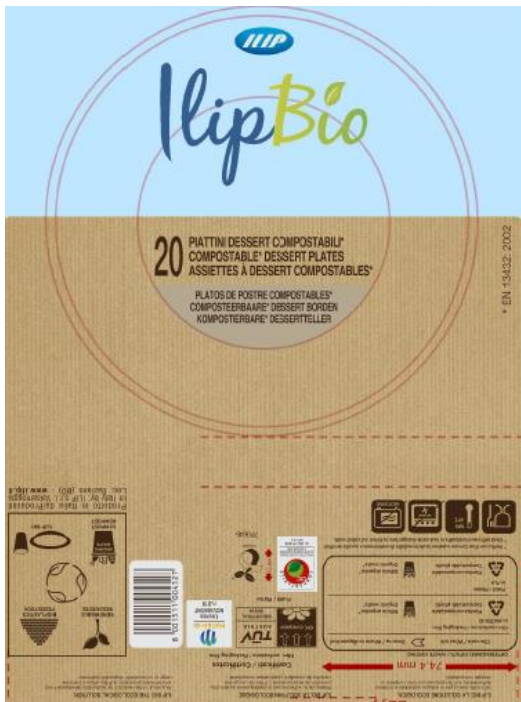
What is the mandatory environmental labeling?



The legislative decree n. 116 of 2020 introduced the obligation of environmental labeling for packaging. The standard obliges manufacturers to apply an environmental label on all packaging that is placed on the market, to facilitate collection, reuse, recovery and recycling. But it will also provide information to consumers on the correct destination.

PACKAGING & ENVIRONMENTAL LABELING

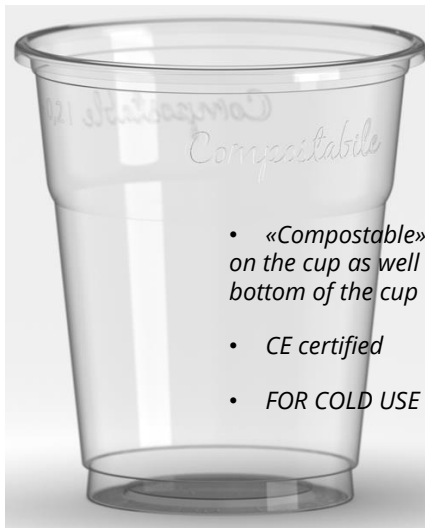
DESIGN OF THE PACKAGING



labels & film

THE ILIP BIO PRODUCT RANGE

CUPS IN PLA



- «Compostabile» embossed on the cup as well as on the bottom of the cup
- CE certified
- FOR COLD USE

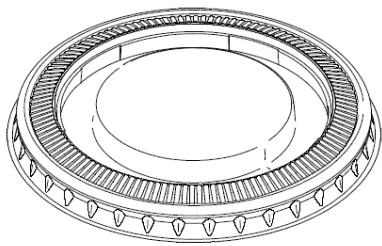


| ILIP code | SAP code | capacity/ml | CE mark ml | weight g | pcs/conf |
|--------------|----------|-------------|------------------|----------|----------|
| 160KPLA | 60783 | 170 | - | 3,5 | 50 |
| LI2001TCE | 61381 | 200 | 0,2 BRIM | 4,7 | 1 |
| LI20050TCE | 61367 | 200 | 0,2 | 4,7 | 50 |
| LI25050TCE | 61354 | 250 | 0,2 | 4,7 | 50 |
| LI30050TCE | 61353 | 300 | 0,2 FOAM 0,25 | 5,5 | 50 |
| LI1/2PT50TCE | 61466 | 300 | ½PT FOAM | 5,5 | 50 |
| LI35050TCE | 61352 | 350 | 0,25 FOAM | 7,7 | 50 |
| LI4001TCEN | 61560 | 400 | 0,3 FOAM | 7,7 | 50 |
| LI40020TCE | 61431 | 400 | 0,3 FOAM | 7,7 | 20 |
| LI40050TCE | 61364 | 400 | 0,3 FOAM | 7,7 | 50 |
| LI50050TCE | 61360 | 500 | 0,4 | 8,8 | 50 |
| LI57550TCE | 61363 | 575 | 0,4 FOAM | 11,0 | 50 |
| LI1PT50TCE | 61467 | 1PT | 1 PT bordo | 11,0 | 50 |
| LI65050TCE | 61362 | 650 | 0,5 FOAM | 11,0 | 50 |

THE ILIP BIO PRODUCT RANGE

LIDS FOR CUPS IN PLA

To complete the range of PLA cups, ILIP offerS compostable lids in PLA available in 3 different diameters, 78mm, 85mm, 95mm.



flat lid

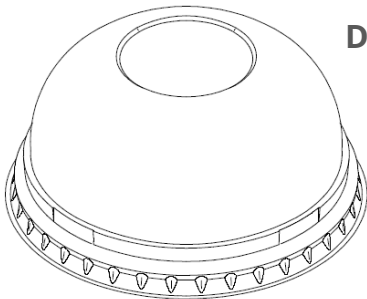


FOR COLD USE



Available sizes:

- Ø 78mm
- Ø 85mm
- Ø 95mm



Dome lid with
or without
hole



THE ILIP BIO PRODUCT RANGE

CUPS IN PLA

LIGHT
CUPS



| ILIP CODE | SAP CODE | capacity ml | weight g | Pcs./ pack |
|------------|----------|-------------|----------|------------|
| LI160W50TE | 61602 | 160 | 2 | 50 |
| LI200W1TE | 61385 | 200 | 2,2 | 1 |
| LI200W50TE | 61412 | 200 | 2,2 | 50 |
| LI230W50TE | 61630 | 230 | 2,4 | 50 |



FOR COLD USE ONLY



TUMBLER



| Codice ILIP | SAP CODE | capacity ml | CE Mark ml | weight g | pcs/ pack |
|-------------|----------|-------------|------------|----------|-----------|
| LI35050TCET | 61468 | 350 | 0,3 | 6,9 | 50 |

THE ILIP BIO PRODUCT RANGE

PRODUCTS IN PLA

FOR COLD USE



| description | SAP code | sizes/ capacity | weight g | pieces/ pack | conditions of use |
|---------------|----------------|--------------------------------|----------|--------------|-------------------|
| dessert bowl | 71247 70880 | Ø 12.6 cm H 4.6 cm 300ml | 6 | 10 50 | |
| salad bowl | | 18x18 h92cm | 9,5 | 6 25 | |
| lid | | 18x18 h22cm | 11,5 | 40 | |
| | 71360 | | | 75 | |
| dessert plate | 70543 | Ø 16.5 cm | 5,5 | 20 | |
| fork | 80772 | 17.5 cm | 4,1 | 25 | |
| knife | 80770 | 17.5 cm | 3,5 | 25 | |
| spoon | 80771 | 17.5 cm | 4,4 | 25 | |

THE ILIP BIO PRODUCT RANGE

TRAYS IN PLA

FOR COLD USE

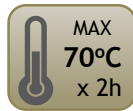
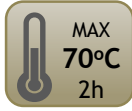


| ILIP code | SAP code | sizes | capacity ml | weight g | conditions of use |
|-------------|----------|-------------|-------------|----------|-------------------|
| LIP1PLA | 30153 | 160x116xh22 | 250 | 9 | |
| LIP2PLA | 30134 | 191x132xh22 | 400 | 13,5 | |
| LIP3PLA | 30225 | 230x157xh23 | 600 | 21,5 | |
| LIG250PLA | 30116 | 126x117xh43 | 250 | 12 | |
| LIG370PLA | 30381 | 126x117xh56 | 370 | 12 | |
| LIG500PLA | 30118 | 135x125xh56 | 500 | 15,5 | |
| LIG750LPLA | 30119 | 188x143xh52 | 750 | 22 | |
| LIG1000LPLA | 30015 | 188x143xh67 | 1.000 | 25 | |
| LISH20PLA | 30092 | 217x167xh20 | 570 | 20,5 | |
| LISH35PLA | 30094 | 217x167xh35 | 1.000 | 23 | |
| LISH55PLA | 30096 | 217x167h55 | 1.500 | 28,5 | |

THE ILIP BIO PRODUCT RANGE

CUPS IN MATER-BI

FOR HOT USE



cups and packaging made of compostable mater-bi to be disposed of in the organic waste bin

| ILIP code | SAP code | capacity | weight | pcs/ pack |
|-----------|----------|----------|--------|-----------|
| LI8040 | 61540 | 80ml | 2,5g | 40 |
| LI200W50 | 61550 | 200ml | 3,5g | 50 |



Compostable and high-performing cups for cold and hot use



THE ILIP BIO PRODUCT RANGE

PLATES MADE OF MATER-BI

FOR HOT USE

flat plate

deep plate

eco-design

Ø20 - 13g



light-weight

Ø21 - 14g

&

HIGH PERFORMANCE

Ø21 - 16g



with flange



high performing compostable plates for cold and hot use



| description | code | sizes | weight | Pcs/ pack | line | conditions of use | | |
|-------------|-------|-------|--------|-----------|-------------------|-------------------|---------------------|--|
| flat plate | 71395 | Ø20cm | 13g | 12 | <i>eco-design</i> | | | |
| | 71391 | | | 20 | | | | |
| deep plate | 71394 | Ø20cm | 13g | 12 | | | | |
| | 71390 | | | 20 | | | | |
| flat plate | 71370 | Ø21cm | 14g | 12 | | | <i>light-weight</i> | |
| | 71380 | | | 25 | | | | |
| deep plate | 71371 | Ø21cm | 14g | 12 | | | | |
| | 71381 | | | 25 | | | | |
| flat plate | 71022 | Ø21cm | 16g | 25 | HIGH PERFORMANCE | | | |
| | 71262 | | | 50 | | | | |
| deep plate | 71023 | Ø21cm | 16g | 25 | | | | |
| | 71264 | | | 50 | | | | |

THE ILIP BIO PRODUCT RANGE

PLATES MADE OF MATER-BI

FOR HOT USE

flat plate

deep plate

eco-design
Ø20 - 13g



light-weight
Ø21 - 14g



Distinctive packaging

HIGH PERFORMANCE
Ø21 - 16g



THE ILIP BIO PRODUCT RANGE

PLATES MADE OF MATER-BI

FOR HOT USE



oval plate



Pizza plate



bowl

| description | code | sizes | weight | Pcs/ pack | conditions of use | |
|-------------|-------|-----------|--------|-----------|-------------------|--|
| oval plate | 71315 | 26x19 cm | 16g | 10 | | |
| oval plate | 70805 | 26x19 cm | 16g | 25 | | |
| bowl | 71265 | Ø 16,5 cm | 16g | 12 | | |
| bowl | 71257 | Ø 16,5 cm | 16g | 25 | | |
| pizza plate | tbc | Ø 31,5 cm | 32g | 8 | | |



Compostable high-performing plates for cold and hot food



THE ILIP BIO PRODUCT RANGE

HEAT-SEALABLE PLATES IN MATER-BI

FOR
HOT USE

Ilip has developed a line of heat-sealable compostable plates with a high thermal resistance.



| description | SAP CODE | sizes cm | height cm | weight g | pcs/pack |
|--------------------------|----------|----------|-----------|----------|----------|
| piatto piano | 71153 | 18x18 | 2,5 | 18 | 40 |
| | | | | | 800 |
| piatto fondo | 71171 | | 3,5 | 18 | 40 |
| | | | | | 800 |
| piatto fondo 2 scomparti | 71172 | | 4,0 | 22 | 40 |
| | | | | | 800 |
| coperchio | 71360 | 0,55 | 11,5 | 40 | |
| | | | | 75 | |



| ILIP code | SAP code | widths |
|-----------|----------|--------|
| LIFANP185 | 79000 | 185 mm |
| LIFANP220 | 79002 | 220 mm |
| LIFANP370 | 79010 | 370mm |
| LIFANP420 | 79001 | 420 mm |

Suitable to come into contact with food-stuff at room temperature or below.

The plates can be closed with a rigid lid in PLA that resists to temperatures from -20 to +40°C, or they can be heat-sealed with film in PLA of different widths.



THE ILIP BIO PRODUCT RANGE

COMPOSTABLE CUTLERY

FOR HOT USE



| description | ILIP code | SAP code | length mm | weight g | pcs/ pack | temp. use cond. |
|-------------------|-----------|----------|-----------|----------|-----------|-----------------|
| dessert spoon | LICND40 | 80901 | 120 | 2,3 | 40 | |
| | LICND100 | 80570 | | | 100 | |
| Bis fo-kn+nap | LIBIS+T | 80840 | 170 | 12,6 | 250 | |
| Tris fo-kn-sp+nap | LITRIS+T | 80841 | 170 | 17,9 | 200 | |



| decription | ILIP code | SAP code | LU mm | g | pcs pack | use cond. |
|---------------------|-----------|----------|-------|------|----------|-----------|
| fork | LIFO25MB | 80827 | 175 | 3,2 | 25 | |
| knife | LICO25MB | 80828 | 175 | 3,2 | 25 | |
| spoon | LICU25MB | 80829 | 175 | 4,0 | 25 | |
| Bis fo-kn + nap | LIBIS+T | 80920 | 175 | 8,8 | 48 | |
| Tris fo-kn-sp + nap | LITRIS+T | 80921 | 175 | 12,8 | 48 | |



THE ILIP BIO PRODUCT RANGE

CELLULOSE PULP

FOR HOT USE

Ilip has included a wide range of **biodegradable** products made of cellulose pulp. The raw material used is bagasse, the sugar cane fiber, the place of production is PRC.



**16
PRODUCTS
IN
PACKS
OF
50 PIECES**

| descrizione | ILIP code | SAP code | sizes/capacity | conditions of use |
|---------------------------------|-----------------------------------|-------------------------|-------------------------------|--|
| Flat plate M-XL | LIPP50 LIPP50XL | 71187 71186 | Ø 22 cm Ø 26 cm | Suitable for heating in microwave oven but not for cooking. |
| Deep plate | LIPF50 | 71240 | Ø 19 cm 680ml | |
| bowl | LISC50 | 71182 | Ø 17,5 cm 400ml | |
| Ovale plate L-XL | LIPOV50 LIPOV50XL | 71189 71188 | 26 x 20 cm 31,8 x 25,5 cm | |
| Square plate S-M-XL | LIPPQ50S LIPPQ50M LIPPQ50XL | 71185 71204 71184 | 16 x 16 20 x 20 26 x 26 | |
| Rectangular plate | LIPPR50 | 71183 | 26 x 13 cm | |
| Dessert plate | LIPND50 | 71200 | Ø 17,5 cm | |
| Plate 2 compartments | LIP2S50 | 71203 | Ø 22 cm | |
| Plate 3 comp. M-XL | LIP3S50 LIP3S50XL | 71202 71201 | Ø 23 cm Ø 26 cm | |
| Catering tray 5 compartments | LIVS5 | 30570 | 26,5 x 21,5 x 2,5 cm | |
| tray | LIVS173 | 30572 | 17,5 x 12,2 x 4 cm | |

THE ILIP BIO PRODUCT RANGE



CELLULOSE PULP

FOR
HOT USE

Ilip offers a wide range of **compostable** products made of cellulose pulp. The raw material used is bagasse, the sugar cane fiber, the place of production is PRC.



7
PRODUCTS
IN
PACKS
OF
15 PIECES

| description | ILIP code | SAP code | sizes/capacity | conditions of use |
|---------------------|-----------------------------------|-------------------------|-------------------------------|--|
| Flat plate M | LIPP15 | 71233 | Ø 22 cm |   Suitable for heating in microwave oven but not for cooking. |
| Deep plate | LIPF50 | 71241 | Ø 19 cm 680ml | |
| Dessert plate | LIPND50 | 71234 | Ø 17,5 cm | |
| Ovale plate L | LIPOV15 | 71242 | 26 x 20 cm | |
| Square plate S-M-XL | LIPPQ50S LIPPQ50M LIPPQ50XL | 71243 71245 71244 | 16 x 16 20 x 20 26 x 26 | |

CELLULOSE PULP



Cellulose is one of the most important polysaccharides. It consists of a large number of diglucose molecules joined together by a β -glycosidic bond. It is mainly contained in vegetables such as sugar cane.

THE FIRBRAWARE® PRODUCT RANGE

CELLULOSE PULP

FOR HOT USE

To complete the range of containers for catering and restaurant professionals, Ilip will insert a range of **biodegradable** clamshell containers in cellulose pulp.



**8
ITEMS
IN
PACKS
OF
50 PIECES**

| ILIP code | capacity | weight/g | sizes | use cond. |
|-------------|-----------------|----------|------------|--|
| LICP450 | 450 | 24 | 155X155X77 | Suitable for heating in microwave only and not for cooking. |
| LICP600 | 600 | 20 | 182X136X68 | |
| LICP1000Q | 1000 | 37 | 220X203X76 | |
| LICP1000Q3S | 325 / 70 / 60 | 37 | 220X203X76 | |
| LICP1200 | 1200 | 42 | 228X228X76 | |
| LICP12003S | 350 / 120 / 120 | 42 | 228X228X76 | |
| LICP1000R | 1000 | 30 | 230X153X80 | |
| LICP1000R2S | 500 / 300 | 30 | 230X153X80 | |

CELLULOSE PULP



Cellulose is one of the most important polysaccharides. It consists of a large number of diglucose molecules joined together by a β -glycosidic bond. It is mainly contained in vegetables. The raw material used for the production of ILIP Bio pulp plates is bagasse, the sugar cane fiber.

THE FIRBRAWARE® PRODUCT RANGE

CARDBOARD

FOR
HOT USE

Ilip has included in its ILIP BIO offer a range of paper products consisting of cups, plates and a tray in packs of 20 and 50 pieces.

The raw material used is 100% renewable, pure Scandinavian virgin cellulose fiber produced from wood from responsibly managed forests and **FSC certified (COC - Chain of Custody)**. The products are made in EUROPE.

The cups are made of paper with a water-based dispersion Barrier of organic polymers, are **free from plastic film, biodegradable** and can be disposed in the paper waste sorting.

Since the plates are not chemically modified, they are considered naturally biodegradable and resistant to liquids and fats.

Plates and cups can be used for cold and hot food and drinks up to a temperature of 90°C.



CARDBOARD



Paper is a material consisting mainly of vegetal raw materials, joined by felting and dried. Paper can be coated, with compostable plastic, or uncoated "free from plastic".

THE FIRBRAWARE® PRODUCT RANGE

FOR HOT USE

PAPER CUPS WITH WATER DISPERSION COATING*

The cups made from cardboard "free from plastic film" are biodegradable, recyclable and can be disposed of in the paper recycling bin.



| ILIP CODE | SAP CODE | CAPACITY | WEIGHT g | pcs/ pack | CONDITIONS OF USE |
|-----------|----------|----------------|----------|-----------|-------------------|
| LI12050P | 61510 | 4oz 120 ml | 2,75 | 50 | |
| LI18050P | 61511 | 6oz 180 ml | 4,3 | 50 | |
| LI25050P | 61512 | 8oz 250 ml | 6,8 | 50 | |
| LI35050P | 61513 | 12oz 350 ml | 10,3 | 50 | |



PRINTABLE – CUSTOMIZABLE

THE FIRBRAWARE® PRODUCT RANGE

FOR HOT USE

LIDS IN PS FOR PAPER CUPS

To complete the range of paper cups, Ilip offers recyclable polystyrene lids in two diameters, to be disposed of in the plastic bin.



| ILIP CODE | SAP CODE | FITS PAPER CUP | WEIGHT g | Pcs/ pack | USE CONDITIONS |
|-----------|----------|----------------|----------|-----------|----------------|
| LIC120 | 61580 | 120 ml | 1,30 | 100 | |
| LIC250 | 61581 | 250 ml | 2,12 | 100 | |

SPECIFICATION

WATER DISPERSION COATING

Biodegradability and recyclability - The paper with an aqueous dispersion coating is biodegradable according to the European standard EN13432:2000 up to 90% in 105 days and is recyclable and «repulpable» to 94,7% like normal uncoated paper.

RECYCLING A DISPOSABLE PAPERBOARD COFFEE CUP

TRADITIONAL CUPSTOCK WITH PE COATING

SEPARATELY COLLECTED AND SORTED. REQUIRES OWN COLLECTION SYSTEM.

WHEN CUPS ARE SHREDDED, FIBRES MUST BE SEPARATED FROM THE PE LAYER BEFORE TRANSFORMED INTO PULP.

A CUP MADE FROM ISLA BARRIER CUPSTOCK WITH DISPERSION COATING

RECYCLED WITH NORMAL PAPER AND BOARD WASTE. DOES NOT REQUIRE OWN COLLECTION SYSTEM.

PAPER WASTE AND CUPS ARE SHREDDED INTO PIECES AND TRANSFORMED INTO PULP.

6/27/2018 © Salla Kettunen, Kotkamills Oy INTERNAL MATERIAL THE GAME CHANGER **KOTKAMILLS**

Microplastic materials

There are a number of definitions, official and non-official about what should be regarded as a microplastic material. A frequently used definition is that microplastics are solid plastic materials with a diameter of less than 5 mm.

Proposal for a EU directive to address the most important sources of microplastics has been made by the European Chemicals Agency (ECHA). In this proposal, the intentional use of microplastic in a number of everyday products is to be banned.

In the board used to produce our products there are no intentionally added primary microplastics.

Presently, there is no legislation and no clearly defined analytics or restrictions regarding non-intentionally formed microplastics.

SPECIFICATION

*WATER DISPERSION COATING

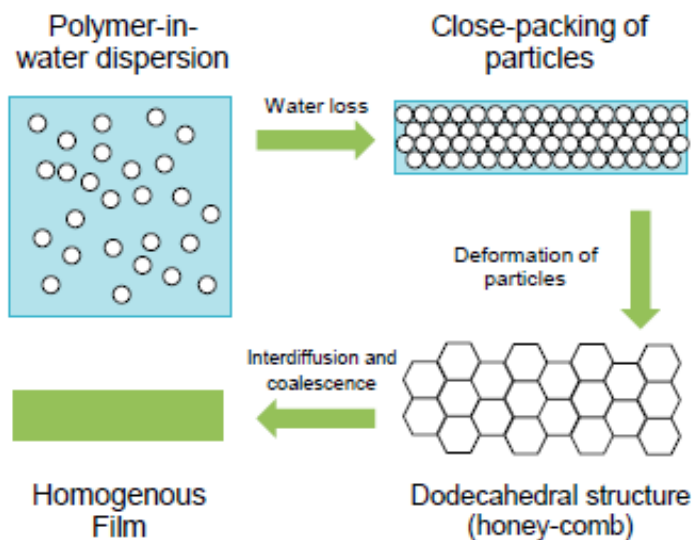
The nature of the water dispersion coatings

The aqueous dispersion of organic polymers, generally called "lactic acids", which are mixtures of natural and synthetic polymers, are widely used in the paper industry as coatings, binders, colours or adhesives. The "lactic acids" do not have a melting point and are unable to perform the function of the main structural component of The finished product and do not have the stretching properties like the plastic has. Generally, these polymers are also mixed with «fillers» and additives to give them the Expected functionality. For the production of the cups they only serve as a barrier to liquids and fats and as adhesives.

Thanks to these characteristics, they cannot be classified as plastics according to the definitions used by both the European Plastics Directive 10/2011 and the European Directive on S.U.P. 2019/904. Consequently, products made with paper with aqueous dispersion coating are not covered by the S.U.P. Directive *



Interpretation of the paper manufacturer



THE FIRBRAWARE® PRODUCT RANGE

UNCOATED PAPER PLATES

FOR
HOT USE

Ilip offers a range of biodegradable plates made from uncoated PAPER, resistant to liquids and fats that can be used with cold and hot foods.



| description | sizes/cm | pcs/pack | use conditions |
|---------------|-------------|----------|----------------|
| flat plate | Ø 23 | 20 50 | |
| dessert plate | Ø 18 | 20 50 | |
| pizza plate | Ø 320 | 20 50 | |
| tray | 190x110 h30 | 50 | |

THE FIRBRAWARE® PRODUCT RANGE

WOODEN CUTLERY

FOR HOT USE

The cutlery derive from 100% renewable resources, is biodegradable, sustainable and is made of birch wood from responsibly managed forests that are FSC certified (COC - Chain of Custody). The Ilip Bio wooden cutlery can be used for cold and hot foodstuff and can withstand temperatures up to 70°C degrees for max. to 2 hours.



| description | SAP code | length mm | weight g | pcs/pack | use conditions |
|----------------------|----------------|-----------|----------|-----------|----------------|
| fork | 80814 80813 | 160 | 2,5 | 20 100 | |
| kinfe | 80816 80810 | 160 | 2,5 | 20 100 | |
| spoon | 80815 80812 | 160 | 3,0 | 20 100 | |
| dessert spoon | 80817 80811 | 110 | 2,0 | 20 100 | |
| set bis | 80820 | 160 | 7,0 | 50 | |
| coffee stirrer | 80821 | 90 | 0,7 | 100 | |
| stirrer sing. packed | 80822 | 90 | 0,45 | 100 | |

WOOD



The wood used for the production of ILIP Bio wooden cutlery is birch from responsibly managed forests that are FSC certified (COC - Chain of Custody).

THE CERTIFICATIONS...

OF THE RANGES

DNV·GL

BRC CERTIFICATE

Certificate No.: 35186-2008-ABRC IOP-ITA-ACCREDIA Initial Audit date: 2008-06-18 Certificate expiry date: 2022-02-25
 Audit date: 2021-01-14 Re-audit due date: from 2021-12-17 to 2022-01-14

This is to certify that the processing activities of

ILIP S.r.l.

Production site: Via Castelfranco, 52 - 40053 Valsamoggia, loc. Bazzano (BO), Italy
 Warehouse: Via delle Industrie 59/61 - 41013 Castelfranco Emilia, loc. Piumazzo (MO), Italy

BRC site code: 1954055

has been found to conform to the standard:
**GLOBAL STANDARD for PACKAGING MATERIALS
 ISSUE 6: AUGUST 2019**

Audit programme: **announced**

The certificate is valid for the following scope:

Extrusion and thermoforming of containers, lids, trays, fruit nest trays for food packaging and disposable tableware (plates, glasses) made in PP, PET, PS, compostable biopolymers. Outsourced processes: off-set decoration and packing of plastic cups; punnets handle application; packing of plastic cups (one single piece per bag) , application of pad and bubble pad in punnets.

Estrusione e termoformatura di contenitori, coperchi, vassoi e alveoli per il confezionamento di alimenti e di stoviglie monouso in PP, PET, PS, biopolimeri compostabili. Processi esternalizzati: decorazione offset e confezionamento di bicchieri in plastica; applicazione manico ai cestini; confezionamento di bicchieri in plastica in confezione singola , applicazione di pad assorbenti e microbolle in cestini.

Manufacturing Category: **04 - Rigid plastics**

Including additional modules: **No**
 Exclusion from scope: **Factored Goods**

Achieved grade: **A**
 Auditor number: 21646

Place and date:
Vimercate (MB), 2021-02-19



For the Accredited Unit:
DNV GL Business Assurance Italia S.r.l.



ACCREDITED UNIT: DNV GL Business Assurance Italia S.r.l., Via Energy Park, 14, 20072 Vimercate (MB), Italy. Tel. 039-08 99 905.
 Website: www.dnvgl.com/assurance
 If you would like to feedback comments on the BRCGS Standard or the audit process directly to BRCGS, please contact tell.brcgs.com.
 Visit brodirectory.com to validate certificate authenticity.

Sabrina Bianchini

Sabrina Bianchini
 Management Representative



Lack of fulfillment of conditions as set out in the Certification Agreement may render this Certificate invalid. Any changes in the product shall immediately be reported to DNV GL Business Assurance Italia S.r.l. in order to verify whether this Certificate remains valid. This certificate remains the property of ACCREDITED UNIT: DNV GL Business Assurance Italia S.r.l., Via Energy Park, 14, 20072 Vimercate (MB), Italy. Tel. 039-08 99 905.
 Website: www.dnvgl.com/assurance
 If you would like to feedback comments on the BRCGS Standard or the audit process directly to BRCGS, please contact tell.brcgs.com.
 Visit brodirectory.com to validate certificate authenticity.

ILIP MEMBER / PARTNERSHIPS





Passion for packaging



ILIP SRL

via Castelfranco 52
40053 Valsamoggia BO
tel +39 0516715411
fax +39 051 6715413
info@ilip.it - www.ilip.it

