



AT THE **FOREFRONT OF ADDITIVE MANUFACTURING,**
ENABLING YOUR NEXT MOVE.

OUR **RECYCLED** MATERIALS

RECYCLED PLA

PLA is one of the most common polymers used in 3D printing. This material is developed by agricultural waste, consisting in a final polymer which is not only completely bio-based, but also biodegradable and recyclable.

For these characteristics, PLA is replacing traditional plastics in huge industrial sectors, such as packaging for food and beverages.

For example, PLA is being used by some companies to produce disposable coffee cups. We have decided to recycle them for new productions: by partnering with some big plastic companies, we collected their production waste to reuse it, both for prototyping and for manufacturing.

We are able to use recycled PLA both as a filament, in standard 3D printers, or as plastic shreds in our printing robot technology.

APPLICATIONS

- CONSUMER GOODS
- FASHION
- PROTOTYPING
- ARCHITECTURE

CASE STUDY

“Serie Eolica” is our first collection of table lamps, whose shapes are generated looking at the twisting curves of winds.

The light is scattered and diffused by a 3d printed lampshade.

We manufactured this lampshade using a filament of recycled PLA coming from the coffee cups waste.

This limited collection witnesses the positive contamination between digital fabrication of the PLA lampshade, and the traditional craftsmanship of the base manually turned, creating a unique objects who puts at its core nature and sustainability.



HEMP

In history, hemp has always been used in day-to-day life applications for its solid fibres, nourishing seeds and natural medicinal properties.

Nowadays, hemp is still considered an environmental-friendly material: the plant reduces water consumption, pesticide use, and is biodegradable.

By combining this natural material with PLA, another bio-based plastic used in 3D printing, is possible to introduce hemp into the additive manufacturing world.

Hemp filament is the upshot of an innovative process that allows to reuse the surplus of the agricultural supply chains, creating a printable material which is sustainable and biodegradable.

The texture and aesthetics of the products manufactured with this material have a “woody” and natural feel, thanks to the hemp fibers visible in the material.

APPLICATIONS

- PROTOTYPING
- ARCHITECTURE
- CONSUMER GOODS
- FASHION

CASE STUDY

Hemp has been used in the production of our collection of vases “Be Seed”.

“Be Seed” is a special project, developed in partnership with a local school and municipality, with the aim to educate kids in biology through the daily observation of a plant’s growth.

We designed and manufactured these little vases with different textures, in order to give them to students.

To enhance the naturality of this project, we decided to print the vase using a filament with added hemp fiber, which makes the object strong but still biodegradable.



RECYCLED TIRE

Every year 550 million of vehicle's tires are dumped. This annual waste could cover almost 1/3 of the distance between the Earth and the Moon.

Tires are in fact among the most problematic source of waste worldwide: they are a serious threat to public health, due to their release of chemicals and pollutants into surrounding soil, groundwaters and rivers.

Nonetheless, this enormous quantity of waste can be in fact transformed into a new valuable resource for production: from one single tire it is possible to obtain enough pellet for the extrusion of 9 rubber filament spool of 500gr each.

We use this filament to manufacture new flexible objects, whose applications range from design to gaskets for mechanics or hydraulics.

APPLICATIONS

- MECHANICS
- DESIGN
- HYDRAULICS
- ELECTRONICS

CASE STUDY

Recycled tire filament was used to produce a series of gasket.

Our client's need was to have a flexible production of this object. The project didn't require the highest mechanical performance, but rather focused the customization of the gasket for a tailor made application.

Tire filament has delivered the right flexibility to the gasket, managing to keep the costs of the material lower in comparison to another raw rubber.



RECYCLED ABS

ABS is a common thermoplastic used in the production of basic daily use products.

For example, shower trays are objects that can be produced with this material through injection molding: by partnering with companies that operates with this material and technology, we collected the plastic waste originated by these dismissed shower trays, to give the material a second life.

ABS can be recycled: a mill transform the plastic can into shreds, that be used as feeding material for our robot technology to produce objects with big dimensions. Otherwise, the shreds can be transformed into filament for standard 3D printers.

APPLICATIONS

- ELECTRONICS
- MECHANICS
- PROTOTYPING
- DESIGN

CASE STUDY

Our client's need was to produce through 3D printing thousands of units of a holding case of electronic components.

Since the piece didn't require excellent mechanical properties, we proposed our client to use a regenerated ABS filament as material.

The use of a recycled material in this case is particularly beneficial for the environment, since the scale of the production is quite big.

This choice allowed us to reduce a little the costs of the production and also to give an added value of sustainability to the product.

