

A stylized graphic of a tree with a brown trunk and branches, and green foliage. The tree is positioned on the left side of the image, with its branches extending towards the center. The background is a solid green color.

# GREEN PRODUCT LINE

Sustainable  
Material Solutions  
for A Sustainable Future

 eurotec<sup>®</sup>

# SUSTAINABLE STRATEGY



## Green Plant

- Solar Power
- Recycled PA Production Facility



## New Polymers

- Biobased
- Biodegradable
- Recycled Materials



## Tailor Made Grades

- Bio Filler
- Waste Filler
- Recycled Filler



## Water Consumption

- Rainwater Harvesting System



## LCA

- Life Cycle Assessment (LCA)



## Waste Management

- Recycling of Organic Waste Sources
- Less Waste Policy in Company
- Environmental Volunteers Community

**Green Product Line** consists of the sustainable products derived from renewable raw material resources, industrial and consumer waste in eurotec® product range. **It is the outcomes of its respect for the environment and use of highest level of know-how in plastics technology.**

The sustainability approach in our industry is becoming important due to the carbon-neutral future, lower dependency on fossil resources and environmental regulations day by day.

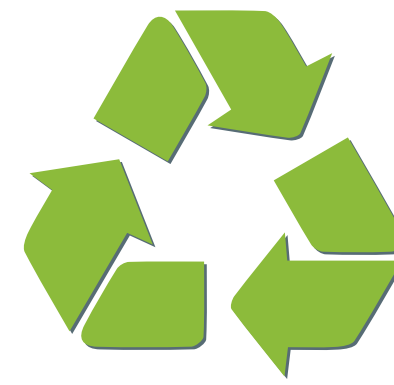
The core focus points of eurotec®'s approach to sustainability are reduction in carbon footprint, proper and effective use of efficient processes and resources, less water consumption, and innovative materials solutions offered through green production and green product line.

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**The Green Product Line is basically divided into two: Recycled Materials and Biomaterials.**

# RECYCLED MATERIALS



eurotec® is offering **sustainable material solutions by increasing the ratio of recycled materials in compound products** with thanks to long-standing know-how and experience. The range of products includes PA, PET, PC and PP as recycled polymers as well as recycled fiber glass, carbon fibers, aramid fibers and mineral fillers as recycled reinforcing materials.

Recycled Materials include the sustainable products produced by eurotec® using industrial and consumer waste in its product line. The range of products includes PA, PET, PC and PP as recycled polymers as well as recycled fiber glass, carbon fibers, aramid fibers and mineral fillers as recycled reinforcing materials. For their formulations, these materials contain partially or 100% recycled reinforcing polymers.

**Tecomid<sup>eco</sup>** is the tradename of Technical Recycled Polyamide Compounds produced from industrial textile fiber waste with outstanding properties. eurotec®'s green sustainable production involves handling and elimination of metal and other contaminants from textile fiber wastes, turning fiber to granules on the extrusion line and then subjecting recycled granules to drying and metal separation process. Thanks to its long-standing know-how on polyamide recycling formulation, testing and processing, eurotec® provides reliable and traceable material solutions by performing characterization, viscosity, mechanical and thermal tests. Hence, **Tecomid<sup>eco</sup>** solution is called near prime since they display similar test performance expected from virgin materials.

Due to the excellently balanced properties, **Tecomid<sup>eco</sup>** grades are suitable for an extensive range of industries

such as, automotive, electrical and electronics, sports and leisure, industrial applications, household appliances, etc. **Tecomid<sup>eco</sup>** NB and **Tecomid<sup>eco</sup>** NA grades are available in various grades with up to 60% glass or carbon fiber content, and flame retardant grades are also available.

**Tecotek<sup>eco</sup>**, **Tecopet<sup>eco</sup>** and **Tecodur<sup>eco</sup>** are the tradenames of Technical Recycled PC, Blends of PBT and Recycled PET, Recycled PET Compounds produced from consumer bottle wastes, respectively. Thanks to their excellently balanced properties, **Tecotek<sup>eco</sup>** grades are suited to a wide range of industries, such as automotive and transportation, electrical/electronics, household appliances, sports and entertainment, safety equipment, and furniture. **Tecolen<sup>eco</sup>** is the trade name of Recycled PP compounds made from industrial bucket, container and crate waste. Due to their excellently balanced properties, **Tecolen<sup>eco</sup>** grades are suited to various industries, such as automotive, household appliances, and furniture.

While eurotec® gives the material mechanical and thermal properties through recycled fiber glass, carbon fibers, aramid fibers, and reinforcing and filling materials with mineral content, the company offers sustainable material solutions by increasing the ratio of recycled materials in compound products.

[eurotec-ep.com](http://eurotec-ep.com)

## ● Polymer - Industrial Wastes

- ◆ PA 6 | From textile fibers waste
- ◆ PA 66 | From textile fibers waste

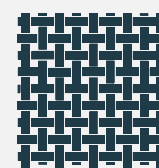
- ◆ PP | From bucket, container and crate waste

## ● Polymer - Consumer Wastes

- ◆ PC | From bottles
- ◆ PET | From bottles

## ● Fillers - Industrial Wastes

- ◆ Glass Fiber
- ◆ Carbon Fiber
- ◆ Mineral Filler
- ◆ Aramid Fiber





# BIOMATERIALS

## ● Polymer - Biobased (Tecobio®)

- ◆ PA 5.6
- ◆ PA 5.10
- ◆ PA 6.10
- ◆ PA 10.10
- ◆ PA 10.12
- ◆ PA 11

## ● Polymer - Biodegradable (Tecobio®)

- |        |  |                       |
|--------|--|-----------------------|
| ◆ PLA  |  | Industrial Composting |
| ◆ TPS  |  | Home Composting       |
| ◆ PBS  |  |                       |
| ◆ PBAT |  |                       |

## ● Fillers - Bio Fillers

- ◆ Wood Fiber / Wood Flour
- ◆ Bast Fiber
- ◆ Leaf Fiber

## ● Fillers - Waste Fillers

- ◆ Consumer Food Waste
- ◆ Agricultural Waste



The range of biomaterial products by eurotec® offers innovative solutions through Bio-Based Polymers (PA5.6, PA5.10, PA11, PA6.10, PA10.10 and PA10.12) that are processed from agricultural-based materials and converted into biopolyamides, Biodegradable products (PLA, TPS, PBS, PBAT) that can turn into waste or compost (fertilizer) without harming the environment, and Bio-Filled and Waste-Filled products. **The products by eurotec® support the achievement of less carbon footprint by efficient use and renewability of resources.**

After the intensive research and pilot production trials conducted by the R&D team, eurotec® successfully completed product development efforts and created biobased and biodegradable products.

eurotec®'s bio-based material line encompasses PA5.6, PA5.10, PA11, PA6.10, PA10.10 and PA10.12 that are chemically processed from agricultural (castor oil, etc.) materials into biopolyamides. Bio-based products are included in the Tecomid<sup>bio</sup> product line as 100% or partially bio-based products, depending on the material and reinforcement type.



With its biobased product line, eurotec® offers solutions for biopolyamides with glass fiber and recycled carbon fiber content. It is developed to offer sustainable material solutions for applications in the automotive and white goods industry, replacing PA6 and PA66.

eurotec® developed the Tecolen<sup>bio</sup> and Tecotek<sup>bio</sup> product line with partial bio-content by compounding bio-based (wood fiber/wood flour, bast fiber and leaf fiber) and organic (consumer and agricultural waste) waste fillers and

reinforcing materials with petroleum-based PP, ABS, PE polymers.

The use of biomaterials has become widespread in many areas, such as automotive parts, packaging industry, food industry and daily life thanks to their natural and environmentally compatible compositions, minimum energy consumption and capability of being manufactured with high efficiency. These composites offer many advantages, such as reduced waste consumption, efficient use of resources, less carbon footprint, and utilization of renewable resources, since they are biodegradable and can turn into waste or compost (fertilizer) at the end of their life with no harm to the environment.

100% biodegradable products in the Tecobio® product line are composed of PLA, PBS, TPS and PBAT and natural or synthetic reinforcing materials and additives reinforced with blends of these polymers. Mechanical and thermal properties of these materials are improved using materials with bio-content such as bio-based (wood fiber/wood flour, bast fiber and leaf fiber) and organic (consumer and agricultural) waste.

