

TECHNICAL DATA

The residue from the mesocarp layer of the fruit of the coconut tree (*Cocos Nucifera*), fibres and coco peat have been used for several years in both ornamental and seeding horticultural applications. **GREENPOINT** began to select part of this product for use with artificial turf.

GREENPOINT, along with its suppliers has adapted the material to obtain the most homogeneous product possible, controlling all stages of its production from its point of origin.



A.- Filling for artificial turf:

The coconut fruit is shredded, composted, washed, dried, sifted and compressed mechanically. It is then hydrated and conditioned in Spain ready for use as a filling for artificial turf.

D- Physical appearance of product:

A granular product is obtained after sifting the components separated from the long fibres. The granules behave like a sponge, absorbing and holding water.

E- Product capacity:

The high lignin content of the material makes the product practically inert giving it a durability of between 8 and 10 years. It does not easily decompose when exposed to humidity or drying, therefore maintaining its original properties almost intact.



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F- Product treatment:

At its source the material is composted for a period of 6 to 10 months where it is naturally washed due to the rains (monsoons).

A composting period of less than six months would mean that the material would be too green to be used and would degrade in less than 2 years, while a period of more than 10 months would produce a mass of clayey texture without the necessary structure to provide the cushioning the artificial turf requires.

G- Selection of granules by double sifting:

This production process is done once the material is dry and consists of sifting to separate first the granules larger than 10mm and then the particles smaller than 1 mm. In this way, two products are obtained; **Coco Medio**, where 60% of the product is made up of granules of between 1 and 10 mm; and **Coco Fino** 80% of which is made up of granules smaller than 1 mm.

H:-The difference between **COCOGREEN and other synthetic fillings:**

- **Coconut fibre retains more water than synthetic material.** Cork retains more heat in warm weather than coconut fibre and therefore more water is needed to lower the temperature.

- **Better temperature retention:** unlike many synthetic products, coconut fibre is less susceptible to changes in temperature, retaining its heat in cooler weather and staying cool when the temperature rises in warm weather.

- **The smell** of coconut is natural and non-toxic. When damp it gives off a smell of wood. Synthetic products can give off a strong smell in high temperatures, especially those made from recycled tyres, vulcanized with peroxide or other thermoplastics based on polythene, polyurethane or other polymers.

- **Cooler;** coconut fibre absorbs up to 97% of humidity meaning that with some light watering or even with the morning dew, the temperature of the artificial turf is lowered, giving off less heat and maintaining a sensation of coolness throughout the day.

- **The visual effect** of artificial turf is similar to natural grass. The colour and the asymmetric shape of the coconut granules is similar to that of soil, giving a surprisingly natural effect.

- **The soft feel** or sensation of walking on turf with coconut fibre is more pleasant than the hard feel of grass with synthetic filling. The elasticity of the product ensures maximum comfort.





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- **The weight** of coconut granules is less than that of synthetic materials. Its application and distribution is easier and faster, therefore lowering labour costs.
- **Environmentally friendly.** The use of coconut products is responsible and sustainable.
- **Maximum safety.** Unlike synthetic fillings with a petroleum base the accidental ingestion of coconut granules, being of a lignified fruit of plant origin, is less pernicious to health.

Model with coconut granule filling



PHYSICAL AND CHEMICAL PROPERTIES OF **COCOGREEN**

	C.E.	pH	C.I.C.	P.T.	C.A.	R.H.	D.A.	P > 4	P 1-4	P 0.25-1	P<0.25
Product	mS/cm		Meq/100 gr.	(%)	(%)	(%)	(gr/L)	(%)	(%)	(%)	(%)
Coconut granule	<1	5,9	65-70	96-97	10-12	50-55	85-90	<5	25-30	45-50	20-25

Nomenclature

C.E. = ELECTRICAL CONDUCTIVITY 1:1,5

pH = Ph IN RELATION 1:1,5

C.I.C. = CATION EXCHANGE CAPACITY

P.T. = TOTAL POROSITY

C.A. = VENTILATION CAPACITY

R.H. = HUMIDITY RETENTION

D.A. = APPARENT DENSITY

P > 4 = PARTICLES LARGER THAN 4 mm

P 1-4 = PARTICLES BETWEEN 1 Y 4 mm

P 0.25-1 = PARTICLES BETWEEN 0,25 Y 1 mm.

P<0.25 = PARTICLES SMALLER THAN 0,25

