

# Absorbing by innovating



Magic develops and produces absorbent materials for food packaging, medical, hygiene and personal care industry: innovative and biodegradable products.

## Our innovative contribution to the industry



### Spongel | 100% biodegradable SAP

It is used in the food packaging industry and for hygiene and personal care products. It is made of biodegradable raw materials and additives.



### Airgel g-grade | compostable airlaid

High absorption compostable airlaid. It doesn't contain any chemical additives, while ensuring high absorbing performances.



### G-pad | compostable absorbent pad

The compostable absorbent food pad that at the end of its lifecycle can be disposed with household waste for industrial composting.



## Super absorbent biodegradable powder

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## Made of 85% bio-based component

### Technical features



As it is well-known, the most natural-based SAPs (Super Absorbent Powder) mainly show a good absorption capacity with zero pressure, whereas high absorption under load is still a main characteristic of acrylate-based SAPs.



Spongel shows free swell capacity (FSC) values in saline solution up to 70 g/g and absorption under load (AUL) values up to 20 g/g.



As for the fluid retention capacity after the centrifugation of the swollen SAP (CRC- centrifugation retention capacity), Spongel surprisingly shows CRC values around 35 g/g, which is very close to the best acrylic-based SAPs values.

## We transform raw materials into innovation

Spongel is a biodegradable and compostable super absorbent powder whose absorption and retention values are hugely higher than the most bio-based SAPs currently available on the market. Thanks to its organic components, its application is safe, in the food, medical and hygiene industries.

In 2015 a university study showed the feasibility of producing a super absorbent powder without any chemical additives. Magic deeply believed in the project and, in a few years, tested and implemented a process and a production plant.

In 2017 Spongel won Edana Index Awards in “Raw materials and innovation” category. At the beginning of 2020 it was certified OK COMPOST.



## A single formula, several versions for different absorption needs

Thanks to constant research and development commitment, Spongel formula is available in different versions, each one for a specific use.

Different dosages of ingredients create suitable performance for free and under pressure absorption, always ensuring an excellent retention capacity.

## Spongel formula gave life to Airgel g-grade, the high absorption compostable airlaid



## Main applications



### Absorbing pads for food packaging

As a natural alternative to traditional acrylic-based SAP's or as an absorption capacity booster of pure cellulose materials in closed pads, which are then optimized.



### Absorbent hygiene products

Baby diapers, sanitary pads, incontinence products, whenever there is a need to significantly increase the absorbing capacity of pure cellulose structures or of other biodegradable materials, both in terms of free and under load absorptions and in terms of the retention capacity of the absorbed fluids.

