



GRAPHENE
PRODUCTION

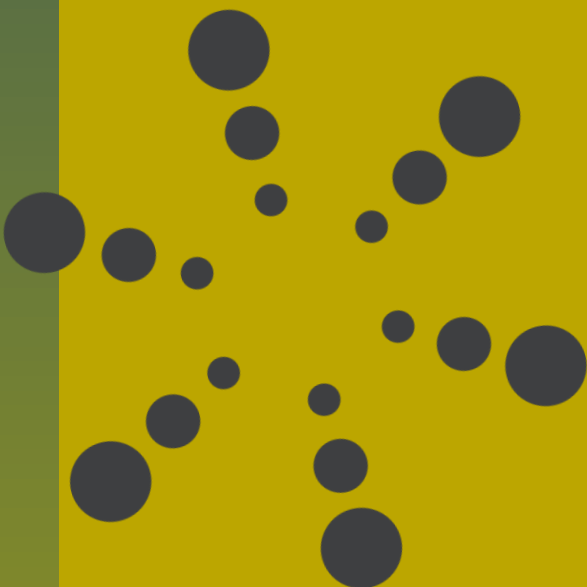
A new era

ENGINEERING

& PRODUCTION

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Graphene

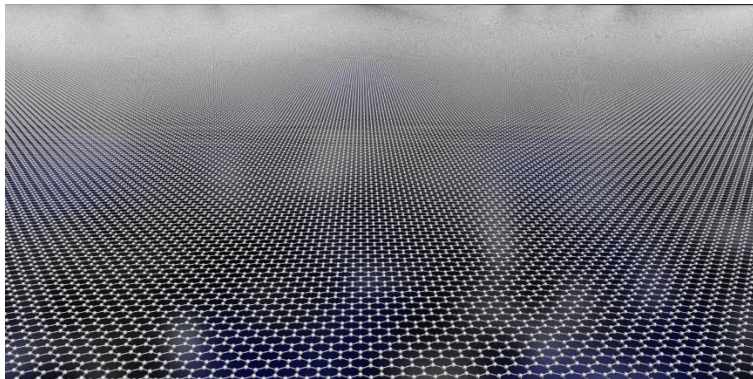


The discovery of graphene: "the wonder material"

Theorized in the middle of the 20th century but deemed impossible, graphene was isolated in 2004 thanks to scotch and a pencil lead.

These discoverers were awarded the Nobel Prize in 2010.

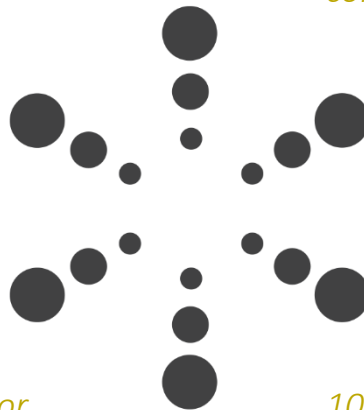
It is the first two-dimensional material and its extraordinary properties have earned it the nickname "wonder material"



Characteristics of graphene

200 times stronger than steel

5 times more thermal conductor than diamond



Impervious - No gas or liquid can pass through it

10 times more electrical conductor than copper

It is also:

- Bio compatible
- inert
- Anti corrosion
- UV protection
- Electromagnetic protection
- Anti-bacterial
- hydrophobic
- Hard as diamond
- flame retardant
- Flexible
- Lubricant
- Lightweight
- Transparent

Manufacture of graphene

There are many possible methods for the manufacture of graphene. The two main ones are:

- The vapor deposit essentially intended for the electronics but it is an expensive process and limited to small surfaces*
- And the exfoliation of graphite to obtain powder or solution for composites or surface treatments.*



Use of graphene:
Polymers, metals, ceramics,
etc.

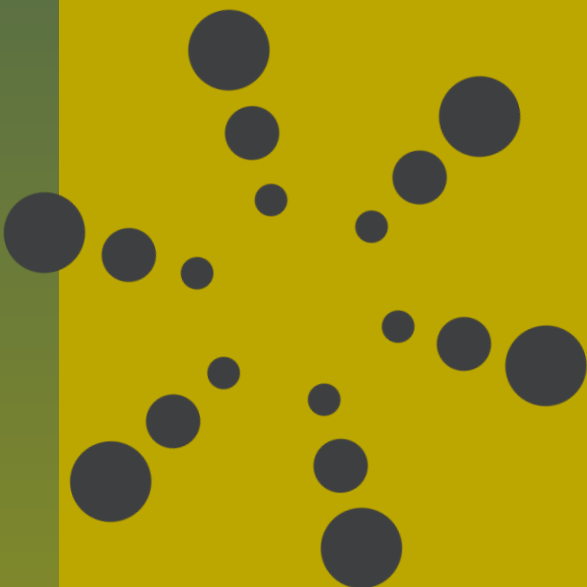
As a filler

Graphene can come as a filler to enhance all kinds of properties. It can also improve the mechanical, electrical and thermal properties. The benefits of graphene begin at very low loading rates (eg 0.01%) and provide superior performance over conventional loadings.

As a coating

Graphene can be used as a surface treatment. Several approaches are possible, chemical, electrolytic or using a coating. Many improvements are possible: abrasion resistance, corrosion thermal conductivity and electrical etc. Graphene is an effective alternative to current treatments, some of which are subject to regulatory prohibitions.

GRAPHENE PRODUCTION



Origin and creation of GRAPHENE PRODUCTION

In 2006, Julien Petrizzelli, the founder of GRAPHENE PRODUCTION, learns the existence of graphene. He senses the potential of graphene and begins to establish a technological watch.

In 2013, the potential of graphene has been confirmed several times, it is the beginning of the creation of GRAPHENE PRODUCTION.

GRAPHENE PRODUCTION is created in May 2015. First in a garage, GRAPHENE PRODUCTION raise fundings and installs its laboratory and production unit in the suburb of Grenoble in 2016.

Service of GRAPHENE PRODUCTION

ENGINEERING



GRAPHENE PRODUCTION proposes to its customers to improve the performance of their products by integrating graphene to their products.

GRAPHENE PRODUCTION then delivers one or more prototype materials loaded with graphene with the integration process



PRODUCTION

GRAPHENE PRODUCTION sets up the manufacture and supply of graphene in the adapted form.



GRAPHENE PRODUCTION produces and delivers graphene or loaded materials. With its production capacity of 30 tons per year, GRAPHENE PRODUCTION is the European leader in graphene production.

Customer Focus

Technical

Graphene can provide a significant improvement in properties to solve a previously blocking technical problem with current materials

Competitive

Thanks to graphene, the products of our customers benefit from new performances that their competitors can not reach with the traditional materials.

Economic

The exceptional properties of graphene make it possible to optimize the materials, the loads and the processes for a better yield.

Regulatory

Currently many regulations come from the use of materials used in many sectors (ex Chrome 6). Graphene by its characteristics and its biocompatibility allows to propose new solutions efficient and in conformity with the legislation.

Application domains

After a little more than a year of implementation, GRAPHENE PRODUCTION began offering its services to all manufacturers in June 2016. Since then, many clients have carried out engineering studies in various sectors, from pen to paper, Automotive, sport and electronics. These contracts cover different materials and issues such as mechanical strength, electrical and thermal conductivity, corrosion protection, etc.





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