# PERFORMANCE ADDITIVES FOR POLYMERS & COMPOSITES

#### **ABOUT CARBON WATERS**

Carbon Waters designs and produces graphene-based performance additives.

Its technology, the result of **10 years of R&D** at the **CNRS** and covered by **six patents**, and its expertise enable it to support **manufacturers** in the use of a new generation of advanced materials with its **Graph'Up** ranges.

Ready to use, Carbon Waters products require neither investment nor specific know-how.

# **GRAPH'UP ADDITIVES FOR POLYMERS & COMPOSITES**

#### Graph'Up Force: additives for the mechanical reinforcement



- Increase of the mechanical properties of materials:
  - +25% tensile strenath
  - +30% resistance to deformation
  - +50% stiffness
- Longer service life of materials.

## Graph'Up Heat: additives for thermal conductivity

- Up to +30% gain in thermal conductivity.
- Three-dimensional heat dissipation.
- Limitation, reduction and delay of overheating.



### Graph'Up Power: additives for electrical conductivity



- Dissipation of electrostatic charges.
- Makes an insulating material semi-conductive.

# **HEALTH AND ENVIRONMENT**

Carbon Waters' Graph'Up ranges meet the challenges of **environmental** and **energy transition**.

Graphene contributes to the **decarbonation of industry**, by replacing certain materials with graphene-enriched composites that are **stronger** and **lighter**.

What's more, thanks to its multiple properties, graphene helps **extend the life of composites** by improving their **thermal behavior** and **resistance** to the external environment (UV, gas, etc.).

#### **IMPROVED MATERIAL PERFORMANCE**

A specialist in **graphene**, Carbon Waters puts all its **expertise** at the service of manufacturers, offering them **high-performance products** tailored to their applications.



Effective at low concentration

Depending on the required properties, Graph'Up additives perform even at **low** concentrations.



Ready-to-use

No need to adapt the **production process**, simply add the Graph'Up additive to the formulation (waterborne or organic-based).



Wide range of applications

Graph'Up solutions are compatible with most **matrices** (acrylics, epoxy, polyamides, polyurethanes) and the most common **industrial processes**.



