avanzare

www.avanzarematerials.com

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Founded in 2004, in **avanzare** Innovacion Tecnologica we provide our customers with high-performance advanced materials & solutions. This company is specialized in the development, production and commercialisation of specialty additives for different materials, mainly plastics and rubber, with international presence across different industries: automotive, aeronautics, safety equipment, footwear, painting, building, wire and cable sector, fabrics, packaging and paper, among others. It has extensive experience in the scope of functionalities such as antistatic, electrical conductivity, thermal dissipation, flame retardant/fire resistance, anti-bacterial, hydrophobic, etc.

**avanzare**'s solutions and specialty performance additives create added value and competitive advantage for our customers, improving or bringing new functionalities to different materials. In a market where product differentiation is playing an increasingly important role, our products will contribute to achieving it.

Our highly qualified and large R&D department (31 professionals, 3500 m2 lab and a complete pilot plant), and solid experience in European Innovation Projects, at the service of our customers, represent a strong competitive advantage.

Ensatec, a European ILAC-ENAC accredited laboratory, became part of **avanzare**'s group in 2014. It is specialized in testing, certification and calibration services with a fire testing division and capacity to issue a wide range of certifications.
At **avanzare** we have extensive expertise in 2D materials research and production, above 10 years now, and we are specialized in the production of different bulk graphene and graphene/graphite nanoplatelets grades, for both industrial and R&D purposes.

Currently our graphene materials stand out mainly thanks to the following properties:

- Electrical conductivity
- Thermal dissipation and conductivity
- As a nucleating agent for mechanical properties enhancement

Our grades range from graphene oxide grades, along with partially reduced and highly reduced graphene oxide grades, to pristine graphene. Dispersions and masterbatches are also available upon customer request. Additionally, thanks to our extensive know-how in this material characteristics and preparation methods, we offer tailor-made graphene grades in which oxygen content, lateral size, number of layers and other characteristics can be modified to better suit our customer’s applications needs.

For more information about our graphene materials, please ask for our graphene brochure or visit our webpage: [www.graphene.avanzare.es](http://www.graphene.avanzare.es)
ESD/Antistatic

Resins and plastics are intrinsically insulating materials; nevertheless, materials with conductive or antistatic performance features are increasingly demanded both for production and protection purposes.

Our antistatic/ESD additives impart certain conductivity in host materials so that they can release static electricity effectively in a controlled way and thus prevent problems caused by static electricity and uncontrolled electrostatic discharges, such as electric shocks, destruction of electronic circuits, sparks, appliance malfunctions, dust adhesion, etc.

avanSTATIC, avanNATUR, avanION and avanDISS antistatic additives ranges share the following features:

- Static dissipative and ESD levels permanent performance
- Colourless and colourable
- Low dosage required
- Minimal effect to host material properties
- Non-migratory
- Food contact grades available
- Solid, liquid, pellet MB formats available

Product specifically developed to ensure compatibility with the host matrix

- Rubber
- EVA
- Polyurethanes
- Thermoplastics: TPU, PVC, PA, PP...
- Thermosets: epoxy, polyurea...
- Composites
- Fabrics

+ tailor made solutions

For more information about our ESD/antistatic grades please ask for our antistatic additives or visit our webpage: www.avanzarematerials.com
Flame retardant /Fire resistant

Flame-retardant and fire-resistant solutions development, testing and production consisting of non-halogenated and antimony oxide free compounds.

+ tailor made solutions and turn-key projects

Increasingly stringent fire, health and environmental protection regulations are driving the need for safer and more efficient flame retardant/fire resistant systems.

With State of the art fire testing lab, **avanzare** group develops and test **tailor-made solutions that deliver results**, catering to each material type of application and regulatory compliance requirements.

For more information please contact sales@avanzare.es or visit: www.avanzarematerials.com
**Anti-bacterial**

**avanZnO BAC** is a highly efficient anti-bacterial product line at controlling and removing microorganisms. It is specially designed to eliminate bacteria and fungi in every type of matrices and materials even when coated.

**avanZnO BAC** products exhibit an excellent cost-effectiveness since extremely low doses are required. They are suitable to be applied in clear or any colour materials and available in solid, liquid and masterbatch. PU foams, rubber, composites, concrete, fabrics, paper, cardboard, wood.

**avanZnO BAC**

**avanWATER**

**avanzare**’s ANTI-STAIN solutions enable to generate lipophobic and hydrophobic coatings.

- Do not alter original material aspect.
- Bactericide properties.

Developed to be applied in:
- Paper
- Cardboard
- Wood
- Fabric
- Cotton

**UV/IR FILTER**

Clear UV/IR filter based on nanoparticles and organic molecules used in cosmetic applications, paints, varnishes, etc...

**Electrically and Magnetically detectable solutions**

Specialty additives designed to impart magnetic and electrical detectability in plastics in order to prevent plastic contamination of food reaching end consumers.

For other applications and tailor-made solutions please contact sales@avanzare.es
**Chemical tracer**

**Chemical trademark (anti-counterfeiting)**

Unique solutions of tailor-made additives based on organometallic compounds for materials differentiation/identification, which allow avoiding illegitimate claims. **avanzare** offers a unique tailor-made additive for each raw material producer and material. Each of these unique additives are neither reused nor subjective to be copied. Based on organometallic compounds, these additives allow identifying and differentiating the treated material from any other, even when included in another formulation or transformed into a finished good.

**Main advantages of avanzare chemical trademark (unique tracer) solutions for materials:**

- They allow differentiating your material/blend
- Illegitimate claims regarding material origin are avoided
- Disincentive and entry barrier for unsafe raw materials suppliers
- They enable to reduce costs on civil liability insurance
- Very low required dosage and cost repercussion
- Tailor-made in terms of design and security levels preferences

**Quality certificates, accreditations and association memberships of avanzare group:**

- **avanzare** has been nationally and internationally awarded

**NANOAWARD: Best Product Award**
As part of **avanzare**’s continuous search for improving and broadening its product range, it allocates many of its resources in Research and Development projects.

**GRAPHENE FLAGSHIP**

Graphene Flagship is the EU’s biggest research initiative ever. With a budget of one billion EUR, the Graphene Flagship project has the ambition to take graphene and related materials from the research laboratories to industrial exploitation in a huge range of application areas.

Supported by the European Union Seventh Framework Programme (FP7-ICT-2013-FET-F) under grant agreement n° 604391.

**& GrapheneCore 1 & GrapheneCore 2**

01/04/2016- 31/03/2020
Supported by European Community’s Horizon 2020 Framework Programme (H2020-Adhoc-2014-20) under Grant Agreement n° 696656.

**NanoREG II**

It will establish safe by design as a fundamental pillar in the validation of novel manufactured materials in order to deal with a rapidly diversifying system of manufactured nanomaterials (MNM) over time.

http://www.nanoreg2.eu/ 01/09/2015- 31/08/2018 
Supported by European Community’s Horizon 2020 Framework Programme (H2020-NMP-2014-twowstage) under Grant Agreement n° 646221.”

**I-ThERM**

It aims to investigate, design, build and demonstrate Innovative Plug and Play Waste Heat Recovery Solutions to facilitate optimum utilisation of energy in selected applications with high replicability and energy recovery potential in the temperature range of 70°C – 1000°C. 

http://www.itherm-project.eu/ 01/10/2015- 31/03/2019 
Supported by European Community’s Horizon 2020 Framework Programme (H2020-EE-2015-1-PPP) under Grant Agreement n° 680599.

**PROCETS**

PROCETS main target is to deliver protective coatings covering a wide range of applications such as automotive, aerospace, metal-working industries via thermal spray and electroplating methods by utilizing more environmental friendly materials.

https://www.facebook.com/Procets-Project-187437001627106/ 01/11/2015 – 30/04/2019 
Supported by European Community’s Horizon 2020 Framework Programme (H2020-NMP-2014-2015/H2020-NMP-PILOTS-2015) under Grant Agreement n° 686135

**M3DLoC:**

It aims at the employment of multi-material 3D printing technologies for the large-scale fabrication of microfluidic MEMS for lab-on-a-chip and sensing applications.

01/01/2018-31/12/2021
Supported by European Community’s Horizon 2020 Framework Programme (H2020-IND-CE-2016-17) under grant agreement nº 760662

**BLOTHERM:**

New chemical blowing agents for thermoforming process.
It aims to prepare parts for white goods, mainly fridges, with reduced weight based on using foams of HIPS (high impact polystyrene) by a combination of co-extrusion and thermofor- ming processes.

01/04/2016 – 31/03/2018 
It is funded by EUROSTARS E! 10113 – BLOTHERM.

**TEX4SUN:**

Next generation of UV resistant polyester yarns.
It aims to obtain UV stabilized polyester (PET) yarns with higher durability than yarns used in outdoor and automotive applications, which lose its mechanical properties upon 1500 hours of exposure to UV-light.

01/11/2017 – 31/10/2019 
It is funded by EUROSTARS E! 11317 – TEX4SUN.

AND MORE... For further information, please check our webpage, R&D services: