

# **Thermally Conductive Plastics – A Global Market Overview**

"The report reviews, analyzes and projects the global market for Thermally Conductive Plastics for the period 2019-2028. The market for TCP types analyzed in this report includes Polyamide (PA), Polybutylene Terephthalate (PBT), Polycarbonate (PC), Polyetherimide (PEI), Polyethylene (PE), Polyphenylene Sulfide (PPS), Polypropylene (PP), Polysulfone (PSU) and Other Plastic Types {primarily including Epoxy, Poly(ether-ether-ketone) (PEEK) and Polyurethane (PU)}. The study also explore market for TCPs in end-use sectors comprising Aerospace & Defense, Automotive, Biomedical, Electrical & Electronics and Industrial."

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#### **Report Synopsis**

Thermal conductivity can be defined as the ability of a given material to conduct/transfer heat, the reciprocal of which is called thermal resistivity. The transfer of heat takes place at a lower rate in materials having low thermal conductivity, compared to materials that have high thermal conductivity. Unfilled plastics and polymers are already being used in various areas as replacements for metals and other similar materials because of their advantageous properties. However, due to their limitations in terms of thermal conductivity, wider use of these polymers has been limited. It is here that polymers/plastics filled with thermally conductive compounds, such as metals, ceramics, carbon and minerals take centerstage and operate as highly efficient materials for the chosen application.

Accounting for a share estimated at 30.8%, valued at US\$45.2 million in 2022, Asia-Pacific leads the demand for Thermally Conductive Plastics (TCPs) on a worldwide basis. The region is also projected the fastest growing market for TCPs for the period 2022-2028.



Source: Industry Experts, Inc. https://industry-experts.com

### **Research Findings & Coverage**

- Thermally Conductive Plastics global market is analyzed in this report with respect to plastic types and end-use sectors
- The study extensively analyzes the market for plastic type and end-use sector of thermally conductive plastic in all major regions for the analysis period

- Energy Efficient Techniques for Improving Thermal Conductivity of Polymer Composites Much in Demand
- Thermal Management of Automotive Electronics Facilitated by Novel Composites
- Polyimide-Modified AIN Fillers in Epoxy for Better Thermal Conductivity in Electronic Encapsulation
- Hydrothermal Coating Technique for Preparing Reformed MgO Filler with High Humidity Resistance
- Key business trends focusing on product innovations/developments, M&As, JVs and other recent industry developments
- Major companies profiled 26
- The industry guide includes the contact details for 336 companies

#### **Product Outline**

The market for Thermally Conductive Plastic types studied in this report includes the following:

- Polyamide (PA)
- Polybutylene Terephthalate (PBT)
- Polycarbonate (PC)
- Polyetherimide (PEI)
- Polyethylene (PE)
- Polyphenylene Sulfide (PPS)
- Polypropylene (PP)
- Polysulfone (PSU)
- Other Plastic Types

End-use sectors market analysis for Thermally Conductive Plastics provided in this report comprise the following:

- Aerospace & Defense
- Automotive
- Biomedical
- Electrical & Electronics
- Industrial

#### Analysis Period, Units and Growth Rates

 The report reviews, analyzes and projects the global Thermally Conductive Plastic market for the period 2019-2028 in terms of value in US\$ and the compound annual growth rates (CAGRs) projected from 2022 through 2028

#### **Geographic Coverage**

- North America (The United States, Canada and Mexico)
- Europe (France, Germany, Italy, The United Kingdom and Rest of Europe)
- Asia-Pacific (China, India, Japan, South Korea and Rest of Asia-Pacific)
- Rest of World



# SAMPLE COMPANY PROFILE

## **IMERYS SA (FRANCE)**

43 Quai de Grenelle, 75015, Paris, France Phone: +33 1 49 55 63 00 Website: www.imerys.com

### **Business Overview**

Established in 1880 as a metals and mining company called Peñarroya, followed by the formation of a holding company named Imetal in 1974, Imerys SA adopted its present name in 1999 with a complete on the processing and supply of industrial minerals. The company's offerings in the area of minerals include andalusite, ball clay, bentonite, calcium aluminate, calcium carbonate, carbon black, chamotte, diatomite, feldspar, fused alumina, graphite, halloysite, kaolin, lithium, mica, moler, mullite, perlite, guartz, talc, wollastonite, zeolite and zirconia. Imervs' products and solutions are widely used in the fields of abrasives, adhesives, caulks & sealants, advanced ceramics, animal care, batteries & fuel cells, board, paper, packaging & pulp, building materials, ceramics, component manufacturing, cosmetics & personal care, crop production, energy & environment, food & beverage, friction materials, health, pharma & biotechnology, homecare, infrastructure & utilities, investment casting, lubricants, paints & coatings, pet care, plastics, refractories and rubber. Minerals offered by the company are compatible with thermoplastic polyolefins (TPOs), polyamides (PAs), polybutylene terephthalate (PBT), polycarbonate (PC)/polybutylene terephthalate (PBT) and PC/acrylonitrile butadiene styrene (ABS) blends, polyphenylene ether (PPE), biopolymers, polyester blends and polyvinyl chloride (PVC) resins.

For thermally conductive plastics, the company offers the following fillers/additives:

Filler/Additive	Particulars
ENSACO <sup>®</sup> High-Purity Carbon Blacks	A high-end line of electrically conductive carbon blacks made using a proprietary technology offered in granule and powder forms. Ideal for conductive and antistatic plastic compounds and used in combination with other additives. Provide improved stability to shear. Applications include electronic packaging, packaging for flammable products, anti-static flooring, fuel hoses and tanks, industrial pipes, ATEX and ESD, EMI shielding, power cables and accessories, conveyor and transmission belts, cylinder covering, rollers, safety systems and switches, heating systems, electrostatic painting and anti- vibration systems.
Timrex <sup>®</sup> Natural, Synthetic & High Aspect Ratio Graphite materials & Water- Based Graphite Dispersions	Comprises a diverse variety of more than 200 carbon products having different particle sizes and morphologies. Synthetic graphite offered in various grades with a wide range of crystallinities from medium to high. Properties include high electrical and thermal conductivity, corrosion resistance, good lubrication and low ash & sulfur content with a consistent particle size distribution, especially in petroleum cokes. Applications include lithium-ion batteries, alkaline batteries, brakes & clutches, friction materials, fuel cells and plastics.

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Glance at 2022 Global Thermally Conductive Plastics Market Share (%) by Geographic Region – North America, Europe, Asia-Pacific and Rest of World



Asia-Pacific Thermally Conductive Plastics Market Analysis (2019-2028) by Plastic Type – Polyamide (PA), Polybutylene Terephthalate (PBT), Polycarbonate (PC), Polyetherimide (PEI), Polyethylene (PE), Polyphenylene Sulfide (PPS), Polypropylene (PP), Polysulfone (PSU) and Other Plastic Types in USD Million



## **KEY PLAYERS PROFILED**

- 3M Company
- AGC, Inc.
- Arkema Group
- AVIENT Corp
- BASF SECelanese
  - Celanese Corp
- Compagnie De Saint-Gobain SA
- Covestro AG
- Dow Chemical Company
- DSM NV
- E.I. Dupont De Nemours and Co
- Ensinger Group
- Huntsman International LLC
- Imerys SA
- Kaneka Corp
- Lanxess AG
- Mitsubishi Engineering-Plastics Corporation
- Ovation Polymers, Inc.
- RTP Company
- Saudi Basic Industries Corporation (SABIC)
- Solvay SA
- Sumitomo Chemical Co Ltd
- TE Connectivity
- Teijin Ltd.
- Toray Industries, Inc.
- UBE Corp

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