

**Low Dielectric Materials Market by Type, Material Type (Fluoropolymers, Modified Polyphenylene Ether, Polyimide, Cyclic Olefin Copolymer, Cyanate Ester, Liquid Crystal Polymer), Application and region - Global Forecast to 2027**

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**Report description:**

The global low dielectric materials market size is projected to grow from USD 1.7 Billion in 2022 to reach USD 2.4 Billion by 2027, at a CAGR of 6.7%. With governments and private organizations escalating the development of the 5G network across the globe, leading mobile companies such as Apple, Samsung, Oneplus, Vivo, and Xiaomi have focused on developing mobiles that are 5G compliant. This factor is expected to be the driving the growth of the low dielectric materials market. Further, with the demand for low loss in communication get further impetus, the need for low dielectrics in antennas and microelectronics is projected to propel the market to newer heights. However, the high cost of these materials compared to traditional materials is expected to be a critical hurdle for the market's growth in the near future.

"Excellent heat resistance capacity is the primary reason behind the fastest growth of thermoset resins."

Thermoset resins such as polyimide and cyanate esters are the fastest-growing type of low dielectric materials in the overall market. These resins have excellent heat resistance capacity and do not change shape with heat generation, making them a material of choice for manufacturing devices such as microelectronics, antenna, and radomes. On the other hand, ceramics are low in cost and have good strength and toughness. They are largely employed in manufacture of microelectronics and radome, ultimately leading to the segment holding a considerable share in the global market.

"Fluoropolymers are utilized at large scale in the manufacture of PCBs"

Fluoropolymers such as PTFE, ETFE, and others hold the largest share in the market, owing to their low cost and excellent moldability. PTFE is a thermoplastic with properties similar to thermoset polymers. It changes shape albeit at a very slow rate

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when applied with heat, making it suitable for manufacturing of PCBs. ETFE and other fluoropolymers are employed to manufacture wires and cables on a large scale, thus driving the market to new heights. On the other hand, liquid crystal polymers are gaining impetus for manufacturing microelectronics. With the demand of the downsizing of electronics being a trend in the global industry, the demand for these polymers is expected to multiply in the near future.

"Increasing uptake of mobiles and smart devices has driven the demand for PCBs."

An increase in sales of mobiles and smart devices, especially in developing economies such as China and India, with 5G compatibility, has driven the demand for PCBs. Furthermore, PCBs not only play a very important role in working of common electronics such as TVs, fridge, and washing machines, they are also eminent for running of high end devices such as missiles and satellites, leading to the application segment holding the largest share of the low dielectric materials demand.

"Asia Pacific is expected to register the highest growth during the forecast period."

Asia Pacific is expected to register the highest growth during the forecast period due to the vast electronics industry. The region consists of countries such as China, Taiwan, Japan, and South Korea, which are among the largest electronics-producing countries in the world. These countries are providing substantial growth opportunities for the low dielectric materials manufacturers to produce electronic solutions. Furthermore, the expansion of 5G and other telecommunication initiatives are expected to further propel the demand for these materials in the near future in the region.

In-depth interviews were conducted with chief functional officers (CXOs), marketing directors, innovation and technology directors, and executives from various key organizations operating in the low dielectric materials market.

□□

-□By Company Type - Tier 1: 55%, Tier 2: 27%, and Tier 3: 18%

-□By Designation - D Level: 18%, C Level: 36%, Others: 46%

-□By Region - Europe: 26%, APAC: 31%, North America: 34%, Rest of World: 9%

The low dielectric materials market comprises significant players such as Huntsman Corporation (U.S.), SABIC (Saudi Arabia), Asahi Kasei (Japan), Zeon Corporation (Japan), Chemours Company LLC (U.S.), DIC Corporation (Japan), Arkema (France), Mitsubishi Corporation (Japan), Showa Denko (Japan), Dow (U.S.), Shin Etsu Chemical Co. Ltd. (Japan), Olin Corporation (U.S.), Celanese Corporation (U.S.), and Solvay (Belgium).

Research Coverage:

The market study covers the low dielectric materials market and its segments. It aims at estimating the market size and the growth potential of this market based on type, material type, application, and region. The study also includes an in-depth competitive analysis of the key market players, their company profiles, key observations related to product and business offerings, recent developments, and key market strategies.

Key Benefits of Buying the Report:

The report will help the leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall low dielectric materials market and the sub-segments. The stakeholders will be able to understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. It will also help stakeholders comprehend the market's pulse and provide them with information on key market drivers, restraints, and opportunities.

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