Global Vapor Deposition Market, by process (CVD and PVD), application (into microelectronics, cutting tool, medical devices & equipment, and decorative coatings), end-use industry (electrical & electronics, automotive, aerospace), and region- till 2023

Synopsis of Global Vapor Deposition Market:

Vapor deposition is a conglomerate of processes, which are used for atom-by-atom or molecule-by-molecule deposition of a single layer or multi-layers of some selected materials on a solid surface of a targeted substrate. The Physical Vapor Deposition (PVD) process uses a liquid or solid source of vapor and Chemical VAPOR Deposition (CVD) using a chemical vapor as a source. The vapor deposition technology is used in various applications including semiconductors, LED, optics, displays, photovoltaic cells, and decorative coatings.

Global vapor deposition market is estimated to reach USD 63,686.70 million at a healthy CAGR of 7.03% by the end of 2023. This growth is attributed to the increasing consumption of various electronic devices, equipment, and appliances across the globe, surging demand from medical devices & equipment, and stringent environmental regulations against the use of Hexavalent Chromium (Cr6).

The global vapor deposition market is segmented on the basis of process, application, and end-use industry. Based on the process, the market is classified into chemical vapor deposition (CVD) and physical vapor deposition (PVD). The CVD is sub-segmented into low-pressure CVD, atmospheric pressure CVD, metalorganic, and plasma enhanced CVD (PECVD), while PVD is further segmented into cathodic arc deposition, electronic beam PVD, and sputter deposition. Among CVD and PVD, CVD held 52.71% share of the market in 2017, yet PVD is projected to grow at the highest CAGR of 7.11% over the forecast period. Furthermore, low-pressure CVD accounted for the major share of this market as of 2017. However, plasma enhanced CVD (PECVD) is likely to register the fastest CAGR of 7.17% during the assessment period 2017-2023.

The microelectronics application segment accounted for the largest share of the market and is estimated to reach USD 30,789.90 million by the end of 2023. Yet, the medical device & equipment segment is estimated to grow at the highest CAGR of 7.28% due to rising spending on health by both government and masses due to growing health awareness. On the basis of the end-use industry, the global vapor deposition market is segmented into electrical & electronics, automotive, aerospace, metal industry, medical, and others. The electrical & electronics segment is dominating the market by end-use industry. It is estimated to attain the mark of USD 25,254.00 million in terms of value by end of the forecast period 2017-2023.

Global Vapor Deposition Market Share, by End Use Industry, 2017 (%)
Regional Analysis

Geographically, global vapor deposition market is spanned across five regions- North America, Europe, Asia Pacific, the Middle East & Africa, and Latin America. Asia Pacific accounted for the largest market share in 2017 and is estimated to expand at the highest CAGR of 7.39% during the assessment period. This region is anticipated to retain its dominance during the forecast period due to rapid industrialization and favorable government policies for electronics and solar energy industry. North America accounted for the second largest market share and is projected to reach USD 14,552.40 million by the end of 2023. The U.S. was the major contributor to the growth of the North American market and is expected to remain dominant over the forecast period.

Europe is another significant region in the global vapor deposition market, which accounted for 18.93% market share in 2017. Germany is likely to dominate the European market in terms of value and volume due to increasing demand from the automotive industry. Latin America and the Middle East & Africa are estimated to grow at a moderate CAGR during the forecast period.

Segmentation

MRFR in its report has offered a segmental analysis of the market based on process, application, end-use industry, and region.

On the basis of the process, the market is segmented into chemical vapor deposition (CVD) and physical vapor deposition (PVD). The CVD is further classified into low-pressure CVD, atmospheric pressure CVD, metalorganic, and plasma enhanced CVD (PECVD). Whereas, PVD is sub-segmented into cathodic arc deposition, electronic beam PVD, and sputter deposition.

By application, the market is classified into microelectronics, cutting tool, medical devices & equipment, and decorative coatings among others.

Based on the end-use industry, the market is categorized electrical & electronics, automotive, aerospace, metal industry, medical, and others.

Based on the region, the global vapor deposition market is segmented into Asia Pacific, North America, Europe, Latin America, and the Middle East & Africa.

Key Players


Key Findings

Global vapor deposition market is projected to reach USD 63,686.70 million by 2023 at a
CAGR of 7.03% during the review period, 2017-2023. The Asia Pacific accounted for largest share of the global market due to rapid growth of the major end-use industries in this region. The global vapor deposition market is a fragmented market. However, tier 1 manufacturers dominate the market. China is the largest market not only in Asia Pacific but also in the global market. The microelectronic application is widely used in the automotive and electrical & electronic industry.

The report covers brief analysis of geographical region includes

- Asia Pacific
  - China
  - India
  - Japan
  - South Korea
  - Taiwan
  - Rest of Asia Pacific

- North America
  - US
  - Canada

- Europe
  - Germany
  - France
  - UK
  - Spain
  - Rest of Europe

- Middle East & Africa
  - GCC
  - South Africa
  - Rest of the Middle East & Africa

- Latin America
  - Mexico
  - Brazil
  - Rest of Latin America

Intended Audience

- Manufacturers and distributors of vapor deposition technology.
- Suppliers and traders.
- Government, associations and industrial bodies.
- Investors and Trade experts.
- Consulting with chemical experts.

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