

Unidirectional Tape Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

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Report description:

The global Unidirectional Tape Market is estimated to reach at around USD 317 million by the end of this year and is expected to grow at a CAGR of over 10% during the forecast period.

The market was negatively impacted by COVID-19 in 2020. Presently the market has now reached pre-pandemic levels.

Key Highlights

Over the medium term, one of the main factors driving the market is the growing demand from the aerospace and rising usage of unidirectional tape in the wind and automotive industries.

On the flipside, high manufacturing and high processing costs of unidirectional tapes are expected to hinder the market's growth. Increasing Investment by major companies worldwide in R&D activities to develop new unidirectional tape products is likely to act as an opportunity for the market studied in the coming years.

Asia-Pacific region is expected to dominate the market with increasing manufacturing from aerospace industry.

Unidirectional Tape Market Trends

Growing Demand from the Aerospace and Defense Industry

Unidirectional tapes are manufactured from glass or carbon fiber embedded in a thermoplastic matrix and are specifically customized based on their different applications.

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Thermoset UD tapes are generally utilized across different industries, as they are less expensive, exceptionally receptive, and have ease of impregnation. High utilization of carbon fiber/epoxy composites in the aerospace Industry inferable from their lightweight, high quality and modulus, and superb fatigue performance.

The global aerospace materials market is estimated to witness healthy growth over the forecast period due to increasing composites' usage in aircraft manufacturing and increasing government spending on military and defense in the major countries like the United States, China, India, the United Kingdom, and so on.

According to data by Stockholm International Peace Research Institute(SIPRI), US and China accounted for the largest military expenditure in 2021 which was valued at around USD 801.0 billion and USD 293.0 billion respectively followed by India and UK at USD 76.6 billion and USD 68.4 billionrespectively.

The global military aircraft and aerospace manufacturing market for aerospace and defense in 2021 were valued at approximately USD 255.8 billion which includes dominant players such as Boeing, Lockheed, and Northrop Grumma. The increasing investments in the research and development (R&D) of advanced composite materials by several aerospace incumbents, like The Boeing Company, and Airbus SE, among others, is also supporting the growth of the unidirectional tapes market.

Hence, owing to the above-mentioned factors, the application of unidirectional tape from aerospace industry is likely to dominate during the forecast period.

Asia-Pacific Region to Dominate the Market

The Asia-Pacific region is expected to dominate the market during the forecast period. The rising demand for unidirectional tape from the defense industry in countries like China and India is expected to drive the demand for unidirectional tape in this region. Unidirectional tapes are used to design lightweight, high-impact, strong materials for high-performance automotive applications. The Chinese automotive manufacturing industry is the largest in the world, with a production share of just over 32.5% in 2021. The industry is supported by multinational players operating large manufacturing facilities in the country.

The growing civil aircraft fleet steadily boosts the demand for unidirectional tape in China. Moreover, in the next 20 years, the Chinese airline companies plan to purchase about 7,690 new aircraft, which are valued at about USD 1.2 trillion.

Automotive production in India witnessed a 30% growth in 2021. The significant growth was supported by government reforms to enhance industrial production and high demand for automobiles from the end consumers in the country. As per the reports by the Society of Indian Automobile Manufacturers, SIAM, the country produced a total of 22,933,230 vehicles, including passenger vehicles, commercial vehicles, three-wheelers, two-wheelers, and quadricycles, between April 2021 to March 2022. Moreover, the government's reforms, such as "Aatma Nirbhar Bharat" and "Make in India" programs, are likely to boost the automotive industry. According to IATA (International Air Transport Association) report, India is poised to become the third-largest aviation market in the world by the end of the forecast period. In the aerospace sector, according to the India Brand Equity Foundation (IBEF), the country's aviation industry is expected to witness INR 35,000 crore (~USD 4.99 billion) investment in the next four years. Furthermore, according to the Global Wind Report, 2022, by the Global Wind Energy Council (GWEC), the Indian wind market outlook for 2022 and 2023 is projected at 3.2 GW and 4.1 GW of onshore wind installations respectively.

Asia-Pacific holds a significant share in the sports and leisure equipment market, and it is expected to grow significantly during the forecast period.

Owing to the above-mentioned factors, the market for unidirectional tape in the Asia-Pacific region is projected to grow significantly during the study period.

Unidirectional Tape Market Competitor Analysis

The unidirectional tape market is consolidated in nature, with the top five players accounting for a significant share in the global market. Some of the major companies (not in any particular order) are TEIJIN LIMITED, Hexcel Corporation, Celanese Corporation,

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TORAY INDUSTRIES INC., and Mitsui Chemicals Inc., among others.

Additional Benefits:

The market estimate (ME) sheet in Excel format 3 months of analyst support

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