

# Europe 3D Woven Fabrics Market Forecast to 2028 – COVID-19 Impact and Regional Analysis – by Type (Solid, Hollow, Shell, and Nodal), Fiber Type (Carbon Fiber, Glass Fiber, and Others), and Application(Ballistics, Aircraft, Transportation, Building and Construction, and Others)

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## **Abstracts**

The Europe 3D woven fabrics market is expected to grow from US\$ 46.80 million in 2022 to US\$ 103.31 million by 2028. It is estimated to grow at a CAGR of 14.1% from 2022 to 2028.

Growing Focus on Eco-Friendly and Sustainable Products Fuels Europe 3D Woven Fabrics Market

The findings of this study were presented at COP25, Madrid, a UN conference on climate change. Conventional construction materials are highly refiber type- and energy-intensive. Hence, owing to the rising concerns and awareness about the social and environmental impacts of conventional building materials, composite manufacturers are shifting toward environment-friendly types such as natural fibers. Moreover, stringent regulations, legislation, and policies concerning environment protection, energy efficiency, and economic quality in the construction industry in Europe create a shift toward green construction and propel demand for sustainable building materials.

However, the growing global construction sector; rising government emphasis on environmental regulations; and increasing ecological, social, and economic awareness prompted an optimal use of natural refiber types. This has encouraged the utilization of natural fiber-reinforced composite materials for diverse applications in the construction



sector. Green carbon fibers have several advantages such as renewability, biodegradability, high strength, low cost, noncorrosive nature, nonhazardous, and manufacturing flexibility, over other composite alternatives.

Furthermore, original equipment manufacturers (OEMs) and other major market players are focused on innovating natural fiber reinforcement materials and 3D Woven Fabrics for applications in the aviation sector. In 2018, Expleo Germany GmbH, Arkema SA, Cobratex, Mecano ID, Specific Polymers, and research laboratories (CIRIMAT, Compositadour) joined forces to create the BAMCO consortium aimed at developing biofiber typed composite materials, with the emphasis on bamboo fiber reinforcements, for aeronautics and aviation applications. Thus, rising awareness of green building materials and government support for sustainable solutions fuel the 3D Woven Fabrics market growth.

# Europe 3D Woven Fabrics Market Overview

The rise in R&D activities to develop 3D woven fabrics in Europe has the potential to create opportunities for business, export, and advanced manufacturing applications for aerospace and automotive industries in the region. In 2022, Biteam AB established 3D Noodles International AB—a company specializing in producing triangular cross-sectional 3D woven fabrics. In 2022, Carbon ThreeSixty Ltd received funding of US\$ 45.5 thousand from Niche Vehicle Network for Project Configurable Higher Density Energy Storage (CHiDEs), which utilizes of 3D woven carbon fiber for the production of a range of reinforced pocketed structures. In 2021, Antich & Sons (Huddersfield) Ltd established advanced capability through a 3-year project with the University of Sheffield Advanced Manufacturing Research Centre (AMRC), funded by Innovate UK, for the production of 3D multilayer woven carbon fiber preforms for advanced composites used in automotive and aerospace industries. In 2020, 3D Weaving SaRL integrated Radio Frequency Identification (RFID) tag into a multilayer 3D woven fabric for applications in textile industry, inventory management, and supply chain management.

Europe 3D Woven Fabrics Market Revenue and Forecast to 2028 (US\$ Million)

Europe 3D Woven Fabrics Market Segmentation

The Europe 3D woven fabrics market is segmented into type, fiber type, application, and country.

Based on type, the Europe 3D woven fabrics market is segmented into solid, hollow,



shell, and nodal. The solid segment held the largest share of the Europe 3D woven fabrics market in 2022.

Based on fiber type, the Europe 3D woven fabrics market is segmented into carbon fiber, glass fiber, and others. The carbon fiber segment held the largest share of the Europe 3D woven fabrics market in 2022.

Based on application, the Europe 3D woven fabrics market is segmented into ballistics, aircraft, transportation, building and construction, and others. The aircraft segment held a larger share of the Europe 3D woven fabrics market in 2022.

Based on country, the Europe 3D woven fabrics market is segmented into Germany, the UK, and the Rest of Europe. The Rest of Europe dominated the share of the Europe 3D woven fabrics market in 2022.

3D Weaving SaRL; Sigmatex Ltd; TEAM Inc; and Tex Tech Industries Inc are the leading companies operating in the Europe 3D woven fabrics market.



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