

Wood Plastic Composite Market Research Report - 2023 Trends, Competitive Intelligence and Forecast Analysis to 2029

Degradability to decide Wood Plastic Composites growth. Market Report by DataM covers 2023 Trends, Competitive Intelligence, Market Shares and Forecast to 2029

DALLAS, TEXAS, UNITED STATES OF AMERICA, December 19, 2022 /EINPresswire.com/ -- Market Overview:

Wood plastic composite (WPC) is a panel or lumber product made using recycled plastic and small wood fibers

or particles. WPC manufacturing involves a two-step process. The first step is a combination of wood and thermoplastic such as polyethylene (LDPE), polyvinyl chloride (PVC), high-density polyethylene (HDPE) and low-density mixed dough-like consistency called compounding. The second step is mixing using a batch or continuous procedure.

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New age Wood Plastic Composites will enable circular home furnishings and building materials. However, degradability and strength will emerge as a decider for a product's success.”

Research Lead, Materials at DataM



Additives such as plastic coupling agents, stabilizers, foaming agents or colors are added to the core ingredient, wood, with grain sizes ranging from 20 to 60 mesh to improve the finished product's qualities.

WPCs offer various advantages, such as they can absorb water into the embedded wood fibers but do not corrode and are extremely resistant to rot, decay and marine borer attacks. In WFCs with a hydrophilic matrix, like PLA, water absorption is more pronounced and reduces mechanical stiffness and strength. An acetylation treatment can improve mechanical performance in a wet environment. WPCs can be formed with standard woodworking tools

and have good workability. Furthermore, WPCs are frequently seen as sustainable because they can be created with waste from the wood industry and recovered plastics.

WPCs have gained tremendous popularity in North America, especially outdoor deck floors. Still, it is also used for fences, landscaping timbers, park benches, railings, cladding and siding, molding and trim, prefab houses and door frames and indoor furniture.

Wood Plastic Composite Market Growth:

As per the research report by DataM Intelligence, the [global wood plastic composite market](https://www.datamintelligence.com/research-report/wood-plastic-composite-market) is estimated to grow at a CAGR of 12.5% from 2023-2029. Growing demand for recyclable materials in the construction and automotive industry escalates the market share for the product. Furthermore, the easy processing of wood plastic composite with the requirement of basic R&D services is expected to create growth prospects for the product in the forecast period.

Download Study Key-takeaways @ <https://www.datamintelligence.com/research-report/wood-plastic-composite-market>

Market Drivers

The advantages offered by wood plastic composites are creating the popularity of the product in various industries such as automotive and construction. The primary benefit of WPC is its environmentally friendly manufacturing process that uses waste wood and recycled plastic. Compared to solid wood's maintenance cost, wood composite plastics are less expensive. Its low life cycle cost is one of the primary causes of WPC's rapid growth.

WPC deck generally has a reduced maintenance cost, but manufacturing costs are roughly 15% higher than pressure-treated lumber. Compared to pressure-treated decking material, the actual payback period is predicted to be between three and five years. Another key benefit of WPC products is their exceptional dimensional stability and low variability.

Furthermore, due to the growing interest in WPC, various companies are investing in research focusing on the WPC's durability and prolonged service life. WPC was initially marketed as inherently resisting fungi or insect attack and decay. It has been shown that WPC will eventually deteriorate and still absorb some moisture, but considerably more slowly than solid wood, making it a primary choice for the user. Thus, various composite companies are investing in the business to overcome the growing demand.

For instance, in 2021, Teknor apex introduced a new product- Weatherguard WG-9000 Compound for the outer or cap layers of dark-color wood plastic composite (WPC) decking. The product provides greater durability and scratch resistance than widely used competing compounds while helping manufacturers to contain costs.

Market Restraints

Wood plastic composites have shown tremendous growth in the past few years; however, raising the raw material cost is a major hurdle to market growth. WPC structures have a 25-year lifetime, two to three times greater than products constructed from solid wood. WPC decking requires a large initial investment from the customer, but the money is recovered quickly because no

ongoing maintenance or repair is required. The pricing, quality and lifespan factors have increased WPC sales by 20–30%.

Market Opportunities

Natural resources are increasingly being used to create many products, including composites. Wood plastic composites are increasingly being investigated for new applications. Medical, construction, automotive, single-use and recreational products are all attractive areas that create growth prospects for such composites.

The use of sound absorption and insulation materials in materials and structures to minimize ambient noise has gotten much attention. Noise-absorbing materials absorb unwanted sound by dissipating sound wave energy and converting some of it into heat as it passes through, making them extremely effective for noise control.

While traditional sound-absorbing materials made of asbestos were dangerous to human health, noise reduction has been an important concern for building environments. As a result, porous absorbents with a similar structure have become widely used as a substitute. Certain sound attenuation qualities were anticipated from WPCs with fibrous and granular porous microstructures. Compared to current commercial products, WPCs with chamber structures demonstrated low and medium-frequency sound absorption capabilities: both increased surface roughness and density benefit sound attenuation. Further, companies investing in research activities are growing on the microstructure to understand how density affects sound energy dissipation, boosting the product's growth prospects.

COVID-19 Impact Analysis

The global wood plastic composites market experienced a decline in 2020 owing to COVID-19's impact. Governments globally imposed strict lockdowns and movement restrictions of varying durations starting from March 2020 to curb the spread of the emerging COVID-19 pandemic. The lockdowns and other movement restrictions completely halted construction and manufacturing activities, barring essential services. Wood plastic composites are used extensively for insulation, door and window panels, wall plastering and scaffolding—similarly, many components in the aerospace, electrical, electronic and automotive industries. Many manufacturing industries temporarily suspend operations or cut back production, thereby depressing the demand for wood plastic composites.

The [global wood plastic composites industry](#) has suffered due to a near-complete collapse in demand. One of the industrial sectors that remained relatively unaffected by the pandemic was healthcare. Wood plastic composite materials make skin grafts, drug delivery patches and surgical gauze. Demand from the healthcare sector remained stable and increased somewhat with the progression of the pandemic.

Market Challenges:

Plastic wood composites' challenges include lower toughness of WPCs than pure plastic, lower

bending strength than hardwood, worse creep performance than wood and a higher linear thermal expansion coefficient than wood. But these challenges are only necessary to pay attention to the engineering design process, which is generally not affected.

Recent Developments in the Industry:

In 2022, AZEK Company Inc, a growing manufacturer of beautiful, low-maintenance and environmentally sustainable outdoor living products, including Versatex, TimberTech decking and AZEK Trim and StruXure pergolas, announced a new suite of offerings from its TimberTech and StruXure brands

Market Segmentation:

The global wood plastic composite market is segmented by type, material, sales channel, end-user and region. By type, the market is segmented into composite boards and sandwich boards. By material into polyethylene, polypropylene, polyvinyl chloride and others. By sales channels into direct and indirect.

By end-user in residential, commercial, automotive, marine and others. By region, North America, South America, Asia-Pacific, Europe and the Middle East and Africa

1. Composite boards:

A composite board is a heated, extruded wood with wood fiber and plastic content. This unique wood composition, often engineered wood, also has colors, borate preservatives and ultraviolet inhibitors. This material is the best option for withstanding the elements because of its treatments and ingredients. Products made of the composite board come in a variety of varieties. Several house improvement tasks, trimming, external shutters and other home goods use the composite board. It offers lasting protection from wear and tear and is available in various colors and types. Due to the many advantages, it may leverage, it is the perfect material choice. The major advantages offered by the segment include easy installation, cost-effectiveness and structural resilience, which booting the product's growth prospects.

2. Sandwich boards:

The benefits of traditional wood polymer composites can be combined with the lightness of sandwich panel technology when WPC is presented in a sandwich-structured composite form. WPC sandwich boards have cores typically made of low-density polymer and wood polymer composite skins, significantly increasing the panel's rigidity. Although furniture applications are currently being researched, WPC sandwich boards are mostly employed in automotive, transportation and building applications. Compared to conventional plastic sheets or monolithic WPC panels, new effective and frequently in-line integrated production processes make it possible to produce stronger and stiffer WPC sandwich boards at reduced costs.

Geographical Classification:

According to the report, the global Wood Plastic Composite market is divided into major regions, i.e., North America, South America, Asia-Pacific, Europe, Middle East and Africa.

North America Wood Plastic Composite Market:

North America has shown the fastest growth in the global wood plastic composite market,

predominately due to the growing demand for environmentally friendly products in the region. Furthermore, due to the expansion of the automobile sector, North America has the highest demand for wood plastic composites. Demand is increasing rapidly due to industrial development—the market benefits from the important player's presence in the region. The market has seen growth in the urbanization, expansion and building industries, creating growth opportunities for the product to grow in the region.

U.S. Wood Plastic Composites Market Trends:

Natural wood is being replaced in the U.S. by wood plastic composites made from waste and recycled polymers. Wood plastic composites have become increasingly popular with automotive manufacturers because they can reduce vehicle weight, improve performance and lower CO2 emissions. Wood plastic composites are used in car interiors for components such as floor panels and doors. Still, they also have additional structural applications in U.S. Furthermore, the market for wood plastic composites has been further boosted in recent years by rising repair costs.

Canada Wood Plastic Composites Market Trends:

The country holds the second market in the region. Wood, thermoplastic and various additives like pigments make up the makeup of wood plastic composites. In this regard, commodity thermoplastics with high volume and cheap costs, like polyvinyl chloride and polypropylene, are used to make wood plastic composites. The country's market is expanding favorably due to rising demand from application-specific market segments. Here, building deck boards and railing systems are the main focus. As a result, these elements encourage the market for wood plastic composites in general.

Mexico Wood Plastic Composites Market Trends:

Mexico's automotive industry has expanded over the past few years. Currently, the automotive sector is expanding due to companies like Audi, BMW, Mazda and others opening production facilities nationwide. Cars are estimated to be Mexico's largest export, making it the fourth-largest exporter of automobiles worldwide. For the first time in 2020, Mexico's automotive industry was the largest contributor to GDP. As a result, all of these elements, as previously said, significantly influence the growth of the wood plastic composites industry in the country.

Competitive Analysis:

The major players are adopting several growth strategies, such as product launches, innovative technologies, acquisitions and collaborations, contributing to the global growth of wood plastic composite. For instance, in May 2021, the KTH Royal Institute of Technology developed a transparent wood composite with 100% renewability by substituting lignin in wood with limonene acrylate. According to the researchers, the novel composite delivers low haze at 30% and optical transmittance of 90% at 1.2 mm thickness. Due to its appealing physiochemical characteristics, the created wood composite is meant to be employed for structural reasons.

Wood Plastic Composite Companies:

Some key companies contributing to the market's growth include JELU, Biologic N.V., Fiberon, LLC, Polymera, Inc., Renolit, Green dot bioplastics, Tamko building products Inc., Timbertech, Trex Company, Inc, Universal forest products, Inc., among others.

Global Wood Plastic Composite Market Report Scope

By Type:

- composite boards
- sandwich boards

By Material:

- Polyethylene
- Polypropylene
- Polyvinyl Chloride
- Others

By Sales Channel:

- Direct
- Indirect

By End-User:

- Residential,
- Commercial
- Automotive
- Marine
- Others

By Region:

- North America
- South America
- Asia-Pacific
- Europe
- Middle East and Africa

The Full Report covers the following:

- The [global wood composite plastic market report](#) offers a comprehensive evaluation of the market in terms of market value (US\$) and Y-o-Y growth rates (%). It does so via in-depth qualitative insights, historical data (2020-2021) and verifiable market size projections (2022-2029).
- Visualize the composition of the global wood plastic composite market segmentation by type, material, sales channel, end-user and region, highlighting the key commercial assets and players.
- Identify commercial opportunities in Global Wood Plastic Composite Market by analyzing trends and co-development deals.
- The report also covers data insights on various industry forces such as porter's five forces, regulations in each country, reimbursement scenario, technological advancements, PEST analysis and pricing analysis.
- Excel data sheet with thousands of Global Wood Plastic Composite Market-level 4/5

segmentation data points.

- PDF report with the most relevant analysis cogently put together after exhaustive qualitative interviews and in-depth market study.
- Product mapping in excel for the key product of all major market players
- The report will provide access to approximately 50+ market data tables, 40+ figures and close to 180 pages.

Additional Benefits Post Purchase:

- 1) Unlimited Analyst support for a period of 1 year.
- 2) Any query regarding the scope offered will be addressed within 24- 48 hours.
- 3) An excel sheet with market numbers will be provided separately.

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