

Global overview of the thermoplastic polyurethane market

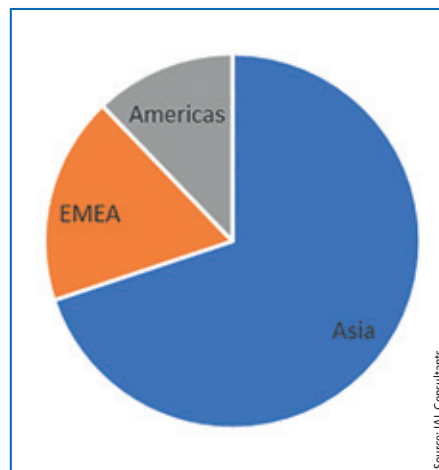
New market study from IAL Consultants

IAL Consultants has recently published the seventh edition of its report entitled "Global Overview of the Thermoplastic Polyurethane Market." This new study examines the national, regional, and global markets for thermoplastic polyurethanes for 2020 and builds upon the research from previous editions of the publication. It explores the market trends driving TPU production and subsequent demand, provides an indication of raw material consumption, and also presents future growth opportunities in the TPU market. Five-year market forecasts to 2025 are also included.

According to the study, the total global production of thermoplastic polyurethane was estimated at nearly 740,000 t in 2020, with over 69 % of production taking place in APAC alone. The market declined by 6.1 % in 2020 due to the effects of Covid-19. Western Europe remains the second largest producing region, followed by North America. The production in other regions remains limited. The production output in APAC did not decline as much as in EMEA and the Americas, and growth rates will also be stronger in Asia in the forecast period. In recent years, TPU enjoyed one of the fastest growth rates within the polyurethane sector, and indeed the impact of Covid-19 was not as severe as on most other product groups. IAL Consultants estimates that the global production output of polyurethane overall has decreased by 10.9 % in 2020. The future recovery is highly dependent on the containment of the coronavirus in 2021, as well as the price development.

The TPU market has matured over the past few years, and growth rates slowed down in 2019, which was mainly attributable to the bad performance of the automotive and footwear segments globally. Nevertheless, the TPU market is still very dynamic. New end-use segments emerge yearly and thermoplastic polyurethane increasingly replaces PVC and other competing materials in a wide variety of end uses, because it often offers superior properties, such as better flexibility, abrasion resistance, workability at low temperatures, and cleanability. Sustainability and the circular environment continue to get a lot of attention, and these have become a key

Global TPU production by region, 2020
(Total: 739,500 t)



topic for many TPU producers globally. It is expected that sustainability, renewable materials, and the circular economy will become the key drivers in the next ten years. TPU could profit from the reduction of single-use plastics, especially in the food and beverages industry.

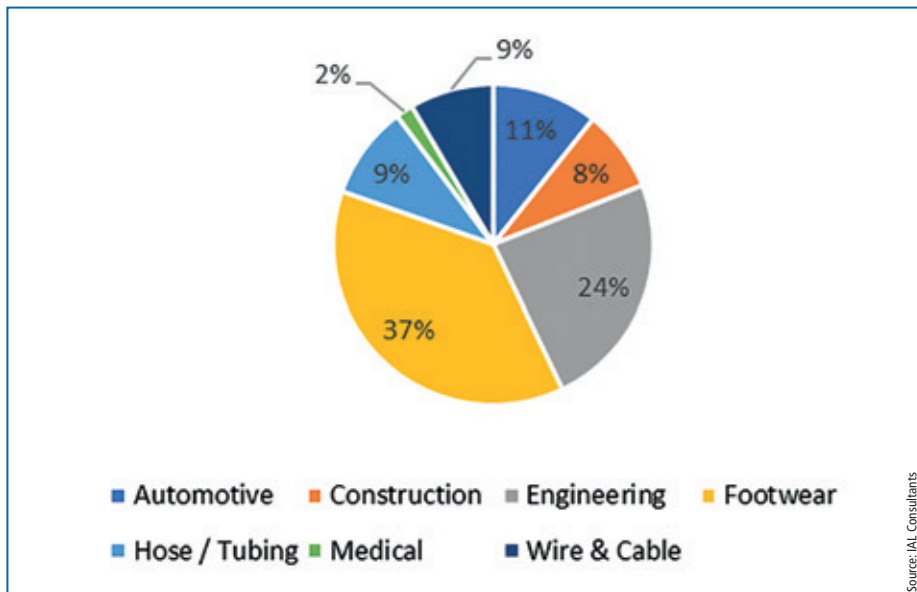
Research and development efforts are focused on the development of 'green' polyols; however, their use is not yet widespread due to their high price and lower quality compared to conventional polyols. Biodegradable TPU is also a key topic in the industry. These materials are based on solvent-free technologies and are already used in apparel applications. The slow drying time remains an issue for solvent-free TPU. The consumption of TPU also decreased by 7.2 % globally in 2020. The EMEA region was most affected by the crisis, but consumption also decreased considerably in South America because of other economic factors.

The market segment for TPU converters is highly fragmented, consisting of a high number of small and medium-sized companies that manufacture custom made products for a huge variety of end-use applications. Many of these companies source their raw materials through PU systems houses and various distributors, which makes it particularly challenging to accurately estimate the total product output and raw material demand, even though the majority of raw materials are manufactured by a limited number of companies.

Despite the difficult situation in the automotive industry, there is still room for growth of TPU usage in the automotive sector, especially with the increasing demand in the electric vehicle segment, including tubing and interior parts, as well as complex materials under the bonnet. There is also potential for complex 3D printed parts for the automotive industry. The automotive industry is conservative and TPU is not expected to gain market shares from existing materials in standard vehicles, especially in the wire and cable market. However, new plants and production processes for electric vehicles could offer a chance to gain market share from more established materials.

The footwear and textiles market is mainly focused in Asia, but consumers in North America and Europe increasingly look for high-quality products, especially for the sports and high-fashion market. Nevertheless, the demand for TPU in footwear and textiles is still driven by population growth as well as an increased disposable income

TPU consumption by end-use, 2020 (Total: 704,000 t)



in emerging countries. The global population is currently growing by 1.05 %, which is around 81 million people in 2020. Footwear and textiles remain very price sensitive, compared to other end-use markets in the

TPU segment. Asia accounts for over half of the global manufacturing output, but only approximately 30 % of consumer spending, because Europe and North America are the largest importers from Asia.

The 3D printing technology could benefit smaller companies with limited financial capabilities in the future, because of the low initial investment compared to the production of conventional TPU parts. The market for complex parts for niche applications is especially of interest for this manufacturing process. This would enable companies to adapt quickly to high demand generated by customer expectations.

"Global Overview of the Thermoplastic Polyurethane Market" is now available from IAL Consultants, priced at EUR 4,200.

Contact:
 IAL Consultants · Cathy Galbraith
 Tel. +44 2088 327780
 Fax +44 2085 664931
 E-mail cgalbraith@brggroup.com
 www.ialconsultants.com

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