Non-Ferrous Fasteners

Introduction

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Fast urbanization and industrialization in emerging countries are projected to significantly fuel the demand for non-ferrous fasteners in end-user industries such as automotive and electronics. The growing transformation in the vehicle body materials, evolution towards light weight bodies, as well as the construction development are the key drivers of demand growth for light weight and high performance non-ferrous fasteners. This group of fasteners are extensively used in various applications in several industries, owing to their special wear and corrosion resistance attributes.

Plastic Fasteners Market

The global market value of plastic fasteners is estimated to hit USD 6.04 billion by 2022, at a CAGR of about 6.3% from 2017 to 2022. As mentioned earlier, the growth of the automotive industry and construction markets are the key drivers for the plastic fasteners market and its global demand. The automotive sector in China, India, Iran, and other countries is increasing at a very fast pace. The growth of construction markets in Asia and North America is another reason for the plastic fasteners market growth.

In recent years, plastic fasteners are broadly used in automotive applications, for their exceptional characteristics such as being lightweight and low cost. The rivets and push-in clips segment is projected to account for the largest share of the plastic fasteners market. Rivets, as permanent fasteners, mainly used in applications which need ease of installation or removability while push-in clips mostly used to attach plastic parts and light sheet metals. Other major types of automotive plastic fasteners are interior trim plastic fasteners, U-shaped clip fasteners, rear facing clips, and expanding nuts. Interior trim plastic fasteners are used in interior parts of automobiles, such as door panels, boot panels, boot liners, armrests, and speaker mounts. U-shaped clip fasteners are used for easy assembly and disassembly operations in automobiles.

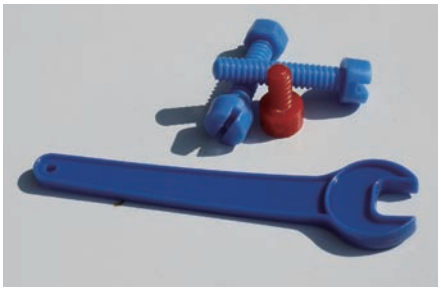
Asia Pacific is projected to be the fastest-growing market for the plastic fasteners in the next five years. China, Japan, India, and South Korea are the major manufacturers of passenger cars and commercial vehicles in this region. The largest consumer of plastic fasteners in this region is China. This country is one of the best markets for automotive OEMs and lightweight material manufacturers and suppliers as it has introduced and implemented encouraging investment policies and low labour cost. The demand growth for automobiles in China is one of the most substantial aspects affecting the plastic fasteners market growth in this country and the region. The slowdown in the US automotive sector is a big obstacle for the plastic fasteners market. The demand for vehicles in the US is declining due to high loan rates and restricted credit conditions. Since the US is the second-largest producer of automobiles globally, this slowdown will affect the plastic fasteners market growth.

In terms of product type, the plastic fasteners market can be divided into threaded and non-threaded plastic fasteners. Bolts, screws, rods, studs, and nuts are examples of threaded plastic fasteners while rivets, washers, pin fasteners, quick-operating fasteners, retaining rings, inserts, and spacers are examples of non-threaded plastic fasteners. Presently, the market is dominated by threaded plastic fasteners, and this group of products is expected to grow at a substantial pace in the next 10 years.

Based on material used, the plastic fasteners market can be separated into nylon, polyethylene, acetal, polycarbonate, PVC, polypropylene, ABS, and others. Currently, nylon dominates the plastic fasteners market. Nylon, as a material for plastic fasteners, provides good protective properties and high resistance against corrosion as compared to other plastic material substitutes. Additionally, it weighs half as much as aluminium, making it a preferred choice for several end-users industries. Consequently, the market for nylon is projected to increase at a substantial pace in the next 10 years.

Non Ferrous Metal Fasteners

Aluminium is lightweight, soft and easily cast, forged or machined. In aerospace, aluminium fasteners are the most preferred choice because of their numerous advantages, such as higher specific strength to steel, lightweight, and excellent corrosion and heat resistance. The total import value of aluminium fasteners (HS code: 761610) in 2017 was about USD 1 billion. China, Germany, the US and Mexico ranked as the top import markets for this group of products. In terms of the export value, the US and Germany registered their names the major exporters in 2017 followed by France and China. The total value of exports registered in 2017 was slightly lower than USD 800 million.



On the other hand, titanium fasteners are driving the industry's shift to them, supported by their significant weight reduction over traditional steel and aluminium fasteners, despite their high cost. The global aircraft titanium fasteners market is expected to witness an impressive CAGR of 6.4% CAGR in next five years. Increasing commercial and regional aircraft deliveries, increasing share of wide-body aircraft in commercial aircraft deliveries, increasing aircraft fleet size, advancement in the fastening technologies, compatibility with carbon composites, and rising demand for lightweight and high-corrosion-resistant fasteners are the key factors proliferating the demand for titanium fasteners in the aircraft industry.

Another group of non-ferrous metal fasteners is copper, which are often utilized in manufacturing applications due to their strength after cold-heading, corrosion-resistance, conductivity and antimicrobial properties. Copper alloys include a large variety copper, brass and bronze alloys. Brass alloys contain zinc, which increases strength but may decrease corrosion resistance. Bronzes are often combined with aluminium, silicon and phosphor to increase strength and corrosion resistance. Brass and copper are used for decorative fasteners due to their shiny finish. Copper, brass and bronze alloy screws, bolts, nuts and studs are easy to machine and, when cold-headed, extremely strong.

Overall, the global demand for non-ferrous fasteners market is expected to increase considerably in the future which is expected be driven more by product innovation, technological advancement and new product development.

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