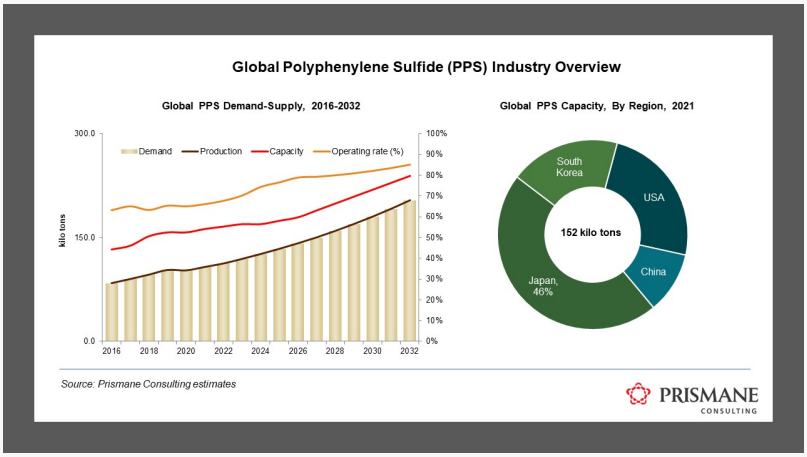
Polyphenylene Sulfide Industry Surges Ahead, Powering Innovation and Transforming Multiple Sectors

PUNE, MAHARASHTRA, INDIA, May 18, 2023 /EINPresswire.com/ -- Prismane Consulting is pleased to publish its Global Polyphenylene Sulfide Market Study Report. This report forms a part of the Engineering Plastics Strategy report published by Prismane Consulting. All existing capacities, country-wise capacity utilization rates, production, net trade, pricing analysis, business opportunity assessment, end-user repository, etc. has been included as a part of the study.



Polyphenylene Sulfide Market Overview

Polyphenylene sulfide (PPS) is a high-performance engineering thermoplastic polymer that exhibits exceptional thermal and chemical resistance. Its unique combination of properties has made it a popular choice in a wide range of applications, including automotive, aerospace, electronics, and industrial. PPS is known for its outstanding dimensional stability, excellent creep resistance, and high stiffness at elevated temperatures. The material is inherently flame-resistant and meets UL 94 V-0 (self-extinguishing) standards without the need for flame retardants. Its ability to withstand exposure to harsh chemicals and high temperatures makes it ideal for use in chemical processing equipment, electrical components, and automotive under-hood applications.

PPS is a semi-crystalline polymer that can be melt processed into various forms such as fibers, films, and moulded parts. PPS is commonly found in the market in various grades, and it is usually compounded with fillers in amounts ranging from 30 to 60%, depending on the intended application. PPS compounds can be tailored to meet specific performance requirements such as low coefficient of friction, high impact resistance, or low outgassing.
PPS can also be blended with other thermoplastics to improve processability and achieve specific performance characteristics. PPS blends with polyphenylene oxide (PPO) offer improved toughness and impact resistance while maintaining the high-temperature performance of PPS. Blends with polyamide (PA) or polyetherimide (PEI) offer improved dimensional stability and

creep resistance.

PPS is a high-performance thermoplastic engineering plastic widely used in the automotive, electrical & electronics, and industrial applications. The PPS demand in Asia-Pacific is estimated to grow at a CAGR of 8.6% during the short-term forecast period, driven by increasing demand for lightweight and high-performance materials in the automotive and electrical & electronics sectors. The region is home to several automotive manufacturers, with China being the largest producer and consumer of automobiles globally. Moreover, the growing demand for electric vehicles in the region is expected to boost PPS consumption within the automotive sector.

The global Polyphenylene Sulfide capacity is forecast to cross 164 kilo tons by 2025, up from 152 kilo tons in 2021. Solvay SA, Fortron Industries, DIC Corporation, Kureha Corporation, Toray Industries Inc., Tosoh Corporation, Lion Idemitsu Composites, and SK Chemicals (Initz Co. Ltd.) are some of the leading PPS manufacturers in the world. Toray is the largest PSS producer in the world accounting for around 18% of the global capacity followed by DIC corporations at 15%.

Automotive light weighting and electrification to boost PPS demand in the long-term forecast

The primary usage of PPS is in the automotive industry is in under-the-hood parts, however, it is rarely used for the manufacture of interior or exterior auto parts. PPS applications in automobiles include fuel injection systems, coolant systems, water pump impellers, thermostat holders, electric brakes, switches, and bulb housing, among others.
Over the past few years, PPS has been used as a substitute for die-cast aluminium in engine cooling systems and has also replaced several other materials such as metal, aromatic nylons (PPA, Polyamide 46), phenolic polymers, and bulk molding compounds (BMC) in various engineered components of vehicles. Electrical & electronics is another major application area for PPS in the region, driven by the increasing demand for high-performance and flame-retardant materials in electronic components. PPS films are also being used in 5G Circuit Boards. Japan is a major market for PPS in the electrical & electronics sector.

Click here for a free sample copy of the PPS market study:
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Asia-Pacific to continue its dominance in PPS supply and consumption through 2032

Asia-Pacific is the largest producer of PPS globally, accounting for 3/4th of the global PPS production capacity in 2021. With recent PPS production capacity expansions announced, the region's overall share is further projected to increase to 78% by 2032. Toray Industries announced to boost its PPS resin capacity by 5,000 tons at its Gunsan plant located in Saemangeum Industrial Complex, South Korea. The expansion is expected to be complete early 2025, bringing total annual PPS resins production capacity of the company to 13.600 kilo tons in South Korea and 32.6 kilo tons globally. The Company is also planning to expand sodium

sulphide (primary raw material) for PPS to nearly 5,000 tons.
In 2021, completed expansion of PPS resins at its facility in Iwaki, Japan by 5 kilo tons. The company now has total PPS production capacity of 15.7 kilo tons to address the growing PPS demand from automotive and electrical & electronics industry.

To know more about the Polyphenylene Sulfide and other Engineering Plastics industry reach out to info@prismaneconsulting.com

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