

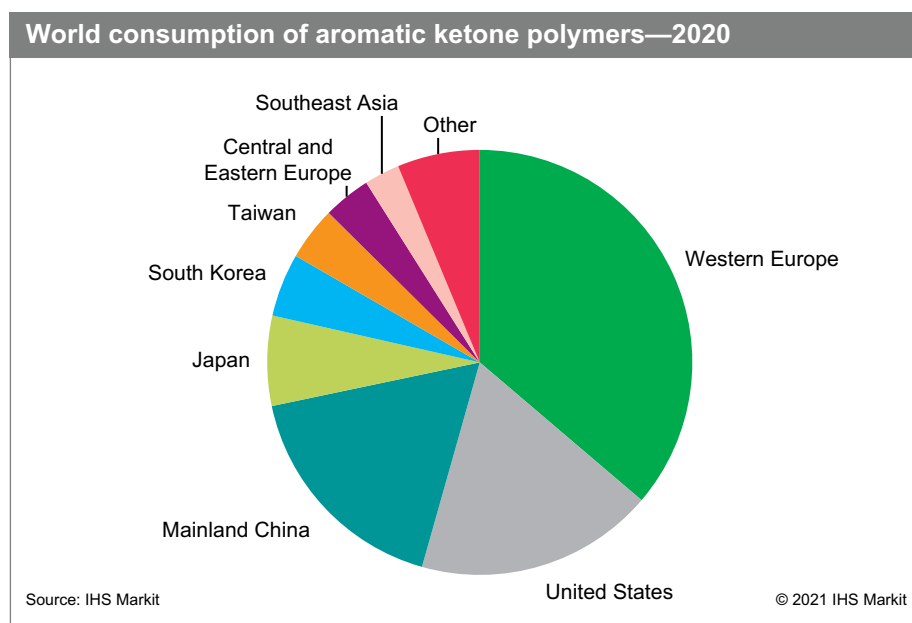
Aromatic Ketone Polymers

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Abstract

Aromatic ketone polymers (AKP), sometimes referred to as polyaryletherketones (PAEKs) and/or polyetheretherketones (PEEK), are a family of semicrystalline high-performance thermoplastics characterized by outstanding thermal stability, excellent strength and fatigue resistance, and superb chemical resistance. Other important AKP types include polyetherketone (PEK) and polyetherketoneketone (PEKK). AKPs' outstanding properties enable them to replace metals and other materials in some of the most severe end-use environments. PEEK is the largest AKP type currently produced, with more than 90% global market share. The major end-use sectors for AKPs include transportation (mainly aerospace and automotive), industrial/energy, electrical/electronics (E/E), and medical applications (mainly as medical instruments/components and biomaterial implants).

The following chart shows world consumption of aromatic ketone polymers:



Aromatic ketone polymers exhibit the following characteristics, which are unmatched by other high-performance polymers:

- Excellent high-temperature performance
- Inherent purity
- Excellent combustion-resistance properties

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- Unique combination of properties
- Good resistance to virtually all organic chemicals
- Good electrical properties
- Processability

Because of their unique set of outstanding properties, aromatic ketone polymers have been increasingly used in many critical applications in industrial/energy, machinery, transportation, electrical/electronic, and medical markets. AKPs' benefits include ease of complex component fabrication, more design freedom, reduction in energy consumption, enhanced fuel efficiency (reduction in CO₂ emissions), tolerance of harsh environments, improved reliability and operational lifetime, greater comfort (smooth operation, noise and vibration dampening), and a strong, lighter weight (lightweighting) material for metal replacement.

For more detailed information, see the table of contents, shown below.

IHS Markit's Chemical Economics Handbook – *Aromatic Ketone Polymers* is the comprehensive and trusted guide for anyone seeking information on this industry. This latest report details global and regional information, including



Global summary;
regional coverage



Producers with
annual capacities
and plant sites



Production figures
and trends



Consumption and
forecasts by end use
application



Manufacturing
processes and
environmental issues



Trade – imports
and exports

Key benefits

IHS Markit's Chemical Economics Handbook – *Aromatic Ketone Polymers* has been compiled using primary interviews with key suppliers and organizations, and leading representatives from the industry in combination with IHS Markit's unparalleled access to upstream and downstream market intelligence and expert insights into industry dynamics, trade, and economics.

This report can help you

- Identify trends and driving forces influencing chemical markets
- Forecast and plan for future demand
- Understand the impact of competing materials
- Identify and evaluate potential customers and competitors
- Evaluate producers
- Track changing prices and trade movements
- Analyze the impact of feedstocks, regulations, and other factors on chemical profitability

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