

Market Report

Global Polyamide Market

Published: December, 2014

Publisher: Acmite Market Intelligence

Language: English

Pages: 521

Price: from 1,490 Euro

Abstract

Polyamide (nylon) market continues to develop very unevenly. While the polyamide fiber market is quite saturated and sees slow or flat growth, polyamide engineering thermoplastics (PA ETP) market shows strong growth globally, likely to increase between 5-6% annually in the coming years.

Polyamides continue to be one of the largest engineering polymer families. Global demand on polyamide resins and compounds (excl. fiber market) was valued at approximately US\$20.5 billion in 2013. The market is expected to reach US\$25.4 billion by 2017 and to approach US\$30 billion by 2020, following the CAGR of 5.5% in the coming years. PA6 and PA66 remain the large-volume standard products, and an increasing number of specialty polyamides appear owing to technical challenges in high end applications.

Automotive and E&E present the largest application markets of thermoplastic polyamides, followed by packaging/film and consumer goods. North America and Western Europe remain the key leaders for polyamide. China is now the second largest single country market, presenting fastest growing demand.

Positive prospects are supported by strong demand from the downstream markets in both developed and developing regions, advancement of material science and process technologies, etc. New business opportunities will emerge in both traditional and novel applications.

Acmite Market Intelligence has finished a most comprehensive report on the global thermoplastic polyamide market. It is ready for order. The report examines the current products, technologies and application areas, provides extensive market data of 2013, and market forecast through 2020 to 2022. It also outlines the competition landscape, evaluates market chances and risks, and anticipates future trends based on a series of influence factors.

- Ca. 220 pages analyzing the market
- Ca. 70 data tables
- Ca. 230 manufacturers of polyamide profiled

With a multi-dimensional and in-depth view of the global thermoplastic polyamide market, this report is an ideal help for you with decisions about market penetration, business expansion or project feasibility analysis.

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Note:

Regions:

North America: US, Canada, Mexico (NAFTA region)

Asia Pacific: Countries of Asia, Australia, New Zealand

Asia Pacific*: Asia Pacific excluding Japan and China

4.1.4. PA 66

4.1.4.1 Products, characteristics and applications

Polyamide 66, like all other polyamide with a nomenclature that involves two numbers, is produced by reacting two different chemicals to form a precursor.

Polyamide 66 is made of hexamethylene diamine and adipic acid. Polyamide 66 is synthesised by polycondensation of hexamethylenediamine and adipic acid. The diamine and the diacid each donate six carbons to the polymer chain, giving polyamide 66 its name.

Main characteristics

Polyamide is the hardest material with excellent rigidity among various types of extruded nylons.

Polyamide 66 displays following characteristics:

- high tensile strength
- high melting point
- high flexural modulus and better creep resistance in comparison to other unmodified polyamides
- high resistance to wear
- high degree of dimensional stability because of lower moisture absorption
- good resistance to fuels, most organic solvents and alkaline solutions at moderate temperatures
- excellent Machinability

Polyamide 66 has a high molecular weight and therefore high viscosity. It has good abrasion resistance when compared to polyamide 6 and better resistant to both high and low temperatures. Compared to polyamide 12, it is more brittle at
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5 Market by application

5.1 Automotive

5.1.1 Application and market segmentation

Polyamide is one of the most valuable engineering plastics in the automotive industry. Moulding and extrusion compounds find many applications as replacements for metal parts, for instance in car engine components.

Polyamide reduces weight, contributing to energy savings, and provides greater resistance and durability, thus extending the life cycle of many products. For safety, polyamide increases energy absorption (providing shock protection) and retards flame propagation. Polyamide also enables design freedom and more sensory comfort in many areas, including a wider range of colors and textures for decorative purposes.

The application of polyamide in the automotive industry can be roughly categorized into following segments:

- Cooling & heating systems. Main applications involving polyamide are water end tanks, water inlets and outlets pipes, cooling module, Cooling grid, expansion tank, heat exchanger tank, thermostat housing, water tubing, etc.
- Electrical & electronics: including peripheral devices, switches, sensors, activators on board computers, coils, connectors, relays, steering switches, ignition system, electronic central unit, clips, control switch gear
- Fuel systems, including fuel filler ducts and tubes, fuel lines, fuel rails, diesel filter, etc.
- Air Systems: air intake manifolds, air suction duct, compressed air valve body, air filter housing, etc.

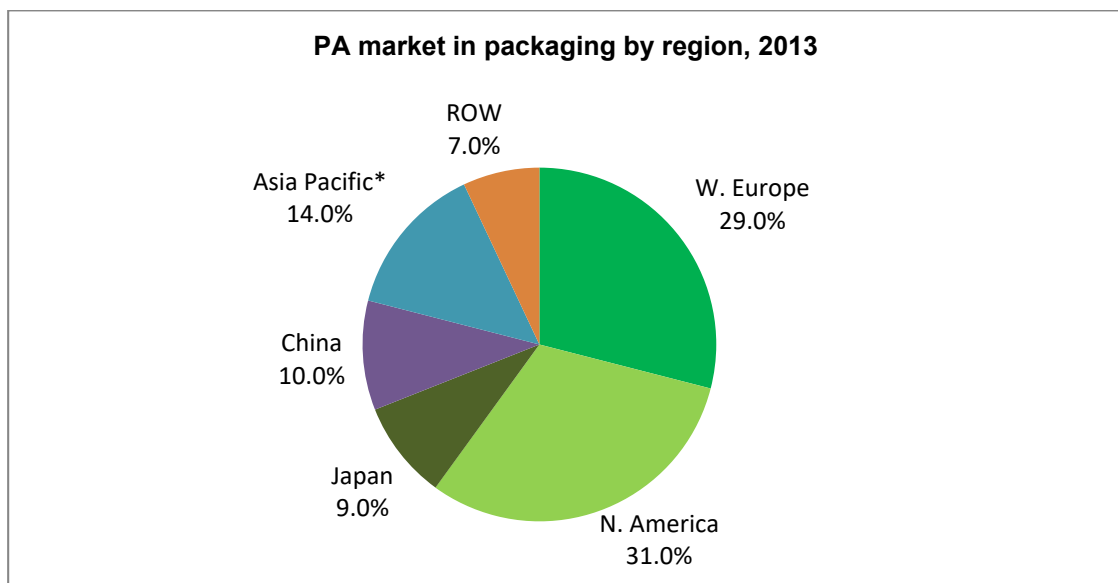
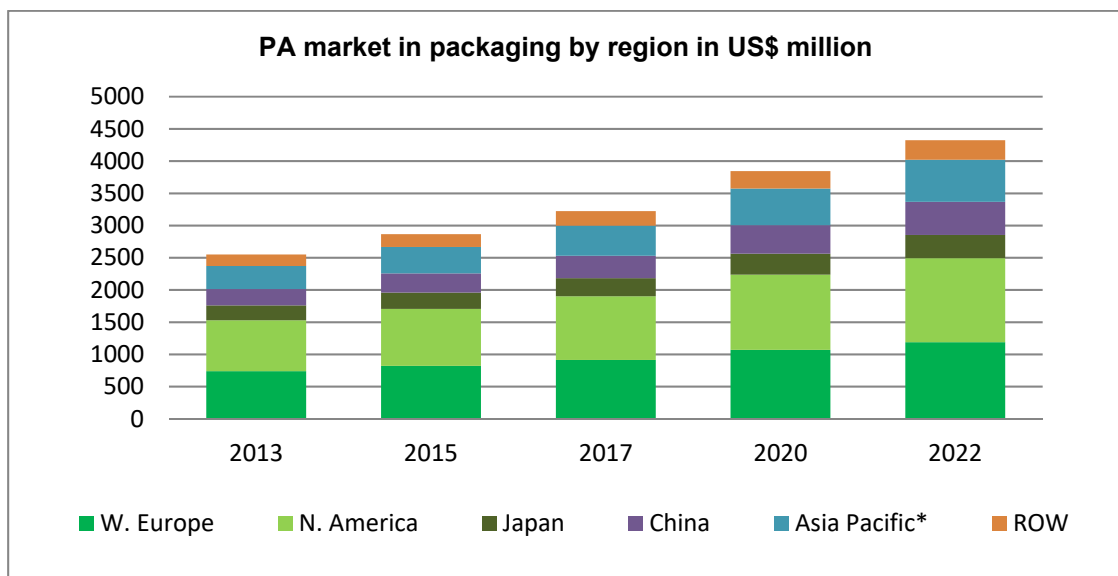
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5.3.2.3 PA market in packaging by region in US\$ million

PA market in packaging by region in US\$ million

	2013	2015	2017	2020	2022	CAGR
W. Europe	739	822	914	1070	1189	5.3%
N. America	790	884	988	1167	1304	5.6%
Japan	229	254	280	326	360	5.0%
China	255	298	349	441	515	8.0%
Asia Pacific*	357	408	467	571	652	6.8%
ROW	178	201	226	271	305	6.0%
Total	2549	2867	3224	3845	4324	6.0%



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Kolon Industries Inc (South Korea)

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<http://www.kolonindustries.com>

Year of foundation: 1957

Number of employees: ca. 2,100

Revenue: KRW 3,963 billion

Company profile

Kolon Industries Inc., formerly Kolon Corporation, has been engaged in the business of nylon production since 1957 in Korea. The company has the production capacity of 60,000 tons annually of more than 300 varieties of polyacetal, nylon, PBT, and TPE resin.

It now operates four business divisions:

- Industrial materials
- Chemical
- Films/electronic materials
- Fashion.

Its films/electronic materials division offers Polyester Film, Nylon Film, Coated Films, Light Diffuser Film, Prism Films, and Light Diffuser Plate.

Its industrial materials division produces and distributes Tire Cords, Airbags, Technical Yarn, Artificial Leather, SPB, Aramid, Membrane, and Miocell.

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C0632	Global Polyamide Market, Volume II	303	<input type="checkbox"/> EUR 790	<input type="checkbox"/> EUR 990	<input type="checkbox"/> EUR 1290
C0630	Global Polyamide Market, Total (Volume I + II)	521	<input type="checkbox"/> EUR 1990	<input type="checkbox"/> EUR 2390	<input type="checkbox"/> EUR 3390
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