

Current trends in the global man-made fiber industry



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Last year's global fiber consumption continued growing at a fast pace, marking a new all-time high. The fiber volume surpassed 90 million tons after growing more than 4%. This proves the robust condition of the demand side despite persistent economic uncertainties and negative growth in the Euro area. Meanwhile, massive investments in fiber intermediates and spinning equipment are increasingly spoiling the mood in the upstream industry. Overcapacity in the polyester sector has been a companion in the previous decade and it is amazing to witness that this scenario of excess capacity with its negative impact in the long-run is currently being repeated in other man-made fiber segments like polyamide and viscose.

Increasing concerns, however, have already led to a cooling and slow-down of new investments as well as postponing of projects. The re-establishment of balanced markets with sufficient operating rates and margins will decisively depend on the future investment behavior in China where manufacturers feel fierce competition by now. So far, restructuring and downsizing measures were predominantly taken in Europe and the Americas.

Man-made fibers have been in the favorable position of enjoying higher growth rates than the world market. While the world fiber market since 1970 has advanced at an average annual growth rate of 2.8%, the man-made fiber segment showed accelerated yearly growth at 4.7% and now takes in 67% of global consumption. This development will undoubtedly continue in future driven by advantages in fiber prices, their versatile field of application and sufficient raw material availability.

The development within the man-made fiber markets, however, has been unequal in the past and 2 fiber types – polyester and viscose – are expected to benefit from future growth the most. This notion will remain unchanged despite last year's surging polyamide performance, gaining around 8% in volume.

Viscose fibers are part of the cellulosic fiber segment comprising cupro and acetate filaments, textile and industrial viscose yarns, viscose staple fibers and acetate tow. The entire sector has impressively confirmed its recovery that began in 2002. Growth rates have even outperformed synthetics in recent years. In particular, viscose staple fibers have enjoyed stunning growth in the past 10 years, producing an average annual growth rate of 9% to arrive at 4.6 million tons in the previous year. Cellulosics, the eldest man-made fiber type, were discovered in the mid 19th century with commercial manufac-

turing starting some decades later. Their revival may surprise at first sight but there are a number of reasons explaining this development and simultaneously illustrating their future potential. In a nutshell, the raw material availability, unique fiber properties and increasing demand from consumers for sustainable clothing will further push manufacturing volumes up.

The raw material availability will decisively determine future growth. The wood-based fiber relies on a carbon-neutral renewable resource that is virtually inexhaustible. In contrast, natural fibers require arable land and increasingly have to deal with fierce competition from cultivation of food, fodder and biofuels. Growth in population and ongoing urbanization will furthermore limit arable land for fiber crops. Synthetic fibers base on oil, which is considered to be a finite resource, but substantial new proven crude oil reserves document extended levels of availability well above previous expectations. Hence, availability of crude oil will not be the issue over the next decades, it will rather be affordability.

Physiological properties are essential to feel comfortable, thus, thermal insulation, moisture management and skin friendliness are crucial parameters. Excellent characteristics allow the use in innumerable applications beyond the clothing sector.

Sustainability is a demand from consumers that is being increasingly requested even if today's diversity in labels hampers a reliable survey. This trend implies sustainable materials and manufacturing methods along the entire chain. According to a life cycle assessment from the University of Utrecht/Netherlands on behalf of Lenzing Group, Lenzing/Austria, viscose fibers have a tremendous advantage in water consumption, land requirements and pesticides over cotton, the area for wood cultivation is not in competition with food crops and their relative environmental load per ton of fiber is among the lowest. Such parameters make this fiber type best qualified to meet future demand despite higher energy requirements. In addition to that, viscose fibers will benefit from limitations in cotton availability in the light of further growing demand for comfortable and eco-friendly fibers.

Despite further growing consumption the regional outlook of disposable income and population growth suggests slowing dynamics in global fiber demand as the share of advanced economies in fiber consumption is expected to decline. Those nations are currently characterized by above average textile demand.