

# Cellulose Acetate Flake

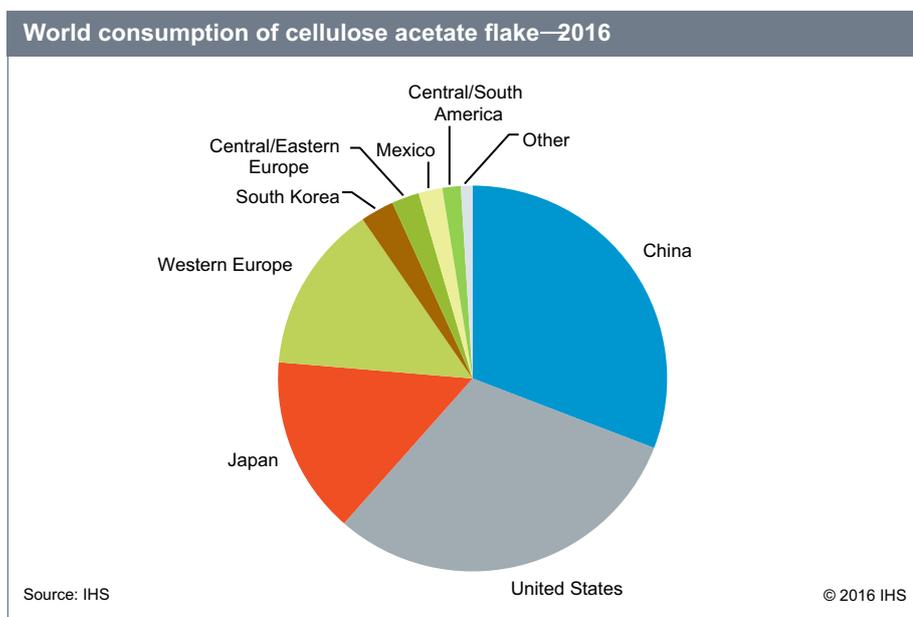
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## Abstract

Cellulose acetate flake is mostly consumed in one major application—the production of cellulose acetate fibers for conversion into cigarette filter tow and textile fibers. Cellulose acetate fibers account for 91% of the world consumption of cellulose acetate flake in 2016. Cellulose acetate molding and extrusion compounds, sheet, photographic film, coatings and inks, and cellulose triacetate for polarizer protection films used in liquid crystal displays (LCDs) account for the remainder.

The following pie chart shows world consumption of cellulose acetate flake:



World consumption of cellulose acetate flake declined from 2011 to 2016. Overall, cellulose acetate flake consumption will remain fairly flat, with a slight decline in cigarette filter tow use and modest growth in other uses. This will parallel the expected global cigarette filter tow consumption decline of 0.2% per year.

The decrease in cellulose acetate cigarette filter tow demand is a result of declining global cigarette use and population of smokers. The negative health effects of smoking, the increase in public smoking bans in countries such as China and Russia, higher cigarette sales taxes, competition from electronic cigarettes (which mainly do not use any filters), and slowing economies are all leading to less cigarette use. Lower cigarette demand has resulted in closures of cigarette production factories and acetate tow plants. This has affected the cellulose acetate flake market.

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Cellulose acetate flake consumption for textile fibers is expected to remain flat, as most consumption is in apparel and home furnishings. Replacement by other textile fibers, especially polyester, has largely occurred. Global consumption of flake in coatings, plastics (molding and extrusion), film for liquid crystal displays, sheet, and so forth are expected to increase modestly. Higher growth will occur in China, as domestic demand for film used in the LCD industry will increase. Elsewhere, limited growth and even declines might take place for these markets because of replacement by other materials that offer better cost or performance. There will be a continued decline in photographic film use.

The current market for cellulose acetate flake is oversupplied. Declining demand for cigarettes and acetate filter tow has generated excess supply. Future growth for use in filter tow (and thus, flake) may come from the promotion of longer filters to reduce tar and nicotine levels even further. Also, increasing production of filtered cigarettes in certain areas, or replacement of lower-quality filters with acetate filter tow would increase flake demand.

Consumption of cigarette filter tow is nearly exclusively dependent on production of filtered cigarettes. It is expected that there will be continued declines in demand for cigarette filter tow in North America, Western Europe, and Japan, while filter tow demand in China (the largest global market) will remain fairly flat or only slightly increase.

For flake uses other than for cigarette acetate filter tow, growth could develop if demand for cellulose triacetate in polarizer protection films increases for LCDs. New applications will need to take advantage of characteristic properties of flake-based materials such as clarity, high-impact strength, and chemical and solvent resistance.

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