

# 2019 Resin Situation and Trends

**In the face of economic and policy headwinds, production and sales of plastic resins in North America rose in 2019, reflecting the competitiveness of regional producers.** According to the American Chemistry Council (ACC) Plastics Industry Producers' Statistics (PIPS) Group, North American resin production grew 1.7 percent to 121.6 billion pounds in 2019, up from 119.6 billion pounds in 2018. Total sales and captive use rose 3.0 percent from 119.8 billion pounds in 2018 to 123.5 billion pounds in 2019.



## The Economic Environment

The global economic environment was increasingly challenged over the course of 2019. Global economic growth decelerated to 2.9 percent annual pace following a 3.8 percent gain in 2018. Manufacturing activity slowed to a stall in some major economies and entered contraction in others, but there were nascent signs of stabilization heading into 2020. Global trade volumes decreased notably as trade tensions and economic and policy uncertainties increased. World trade slowed to an estimated 0.5 percent pace in 2019, the slowest on record since the recession. Another year of steep tariffs on US-Chinese goods trade took a toll on international supply chains and trade flows. Increased costs in doing business, supply chain disruptions and negative spillover effects hurt

Global trade volumes decreased notably as trade tensions and economic and policy uncertainties increased. Another year of steep tariffs on US-Chinese goods trade took a toll on international supply chains and trade flows.

resin producers and downstream manufacturers in the US, China, and in many other countries.

The economic situation in North America also weakened. In both the US and Canada, economic activity decelerated. In the US, the longest and slowest economic expansion on record continued. The pace of growth in the US moderated as the year progressed and the industrial sector entered a serious soft patch. As

Despite trade policy uncertainty and softness in the American industrial sector, the US continues to attract chemical industry investment. Since 2010, the industry has invested \$89 billion in new or expanded US facilities.

trade flows slowed, business spending stalled and consumer spending softened, the US economic situation ended 2019 on a weak note. Despite trade policy uncertainty and softness in the American industrial sector, the US continues to attract chemical industry investment. Petrochemical producers have announced significant expansions of capacity in the US, reversing a decade-long decline in the 2000s. Since 2010, the chemical industry has invested

\$89 billion in new or expanded facilities in the US. These 210 projects are completed and operating. Another 43 projects cumulatively valued at \$27 billion are under construction, while 90 projects valued at \$87 billion are in the planning phase. Total investment is \$203 billion across 343 projects.



## Trends in Customer Industries

Supply and sales of North American resins depends on demand in key customer industries in the region and all of the world. Performance in key end-use markets is discussed here.

### Packaging

Packaging is the largest market for plastic resins. Demand for packaging continues to grow in both developed economies and in emerging markets as trends such as urbanization and rising wealth persist. Growth in external markets, and in particular emerging economies, will be an important driver for resin demand in the coming years. Therefore, maintaining and expanding market access for North American resins exports is critical.

Demand for packaging continues to grow in both developed economies and in emerging markets as trends such as urbanization and rising wealth persist.

Plastics packaging is essential in both consumer and industrial applications. Food and beverages account for a significant portion of consumer goods produced. In food services, plastics packaging is important in raising standards of living and providing functions such as insulating food which can improve quality and reduce waste. Packaging used in retail is a key driver of demand as well. In North America, real retail sales (i.e., retail sales adjusted for inflation) are a good indicator for resins demand because they are typically correlated with packaging resin

use. North American retail sales increased 1.5 percent in 2019 with sales in the US and Canada moderating since 2017. In 2019, real retail sales in the U.S. grew 1.6 percent, reflecting a moderation towards the end of the year that was expected to continue into 2020.

Shopping and the type of packaging used has evolved with the growth in “non-store sales which continues to outpace growth in traditional “brick and mortar” stores.

Shopping and the type of packaging used has evolved with the growth in “non-store” sales which continues to outpace growth in traditional “brick and mortar” stores. In the US, non-store retail sales have grown from about 5 percent of total retail sales 20 years ago to about 12 percent of sales currently. To maintain market space, many traditional retailers have shifted focus to enable online sales. This shift in sales and consumer behavior is impacting packaging demand because it creates demand for new types of packaging. For example, considering the consumer goods sold by “non-store” retailers, plastics packaging is important in protecting products during shipments and increases the efficiency of transportation of the goods.

Another key indicator of packaging demand is real consumer spending. Consumer spending decelerated from a 2.9 percent pace to 2.5 percent in the North American region in 2019. According to Statistics Canada, the Canadian retail sector increased 1.6 percent in 2019, down from a 2.2 percent pace in 2018. Retail sales also moderated in the US, decelerating from a 2.9 percent pace in 2018 to a 2.5 percent pace in 2019.

### Building and Construction

Growth in the building and construction sector and investment in infrastructure translates to stronger demand for resins because they are essential inputs to products such as roofing,

insulation, windows, piping, and house wrap. The use of plastics promotes energy efficiency and savings in both residential and non-residential building and construction. Overall, North American construction activity has decelerated over the past 2 years, growing at a 1.3 percent pace in 2019. Business investment including in structures and other non-residential buildings met headwinds in 2019 as broader economic conditions deteriorated, policy uncertainty (particularly in the US) increased, and the ramp-up driven by investment incentives in the US 2017 Tax Cuts and Jobs Act had completely dissipated. As activity in the construction industry moderated last year, so did demand for construction supplies and materials that use resins as inputs. North American construction materials production increased 1.3 percent last year following 3.0 percent growth in 2018.

Business investment including in structures and other non-residential buildings met headwinds in 2019 as broader economic conditions deteriorated, policy uncertainty increased, and the ramp-up driven by investment incentives in the US 2017 Tax Cuts and Jobs Act had completely dissipated.

Private construction spending is driven by the housing market, a key-end use market for plastic resins. While residential construction activity improved in the US, activity deteriorated in Canada. In the US, the housing market was supported by increased affordability. Lower mortgage rates in the second half of the year and muted price inflation provided some much-needed stimulus.

Shortages of labor and available lots, however, constrained the pace of growth. In the US, housing starts surprised to the upside and rose

by 4.0 percent in 2019 to a 1.30 million unit pace. In Canada, housing starts have declined since growing 11.2 percent in 2017. In 2019, starts fell 1.9 percent from 213,000 units to 209,000 units.

### Automotive

In the automotive market, plastic resins are essential for increased safety, light-weighting, and improvements in performance, fuel efficiency and emissions reductions, as well as for creativity and flexibility in design. Plastics and polymer composites contribute to a wide range of safety, performance and aesthetic breakthroughs in today's cars, minivans, pickups, and SUVs. As a result, the use of plastic and polymer composites in light vehicles has increased from less than 20 pounds per vehicle in 1960 to about 332 pounds on average currently. Auto sales are a key indicator for resins demand. In the U.S., light vehicle sales fell 1.9 percent to a 16.9 million unit pace in 2019. Despite a pull back from record-high vehicle sales, the automotive sector remained at relatively elevated levels in 2019. Continued job and income gains were supportive, but the industry may become somewhat challenged as the pent-up demand that fueled vehicle sales in recent years has been largely satisfied and vehicles are lasting longer.

Despite a pull back from record-high vehicle sales, the automotive sector remained at relatively elevated levels in 2019. The industry may become somewhat challenged as the pent-up demand that fueled vehicle sales in recent years has been largely satisfied.

According to the U.S. Federal Reserve Board, production of motor vehicles and parts in the U.S. contracted 2.4 percent in 2019 after having increased by 4.3 percent in 2018. In Canada, production of motor vehicles and parts was down 2.2 percent in 2019 following a 1.0 percent

increase in 2018. Overall, North American production of motor vehicles and parts declined 2.3 percent in 2019.

### **Electrical and Electronic Products**

Resins are essential inputs in computer and electronic products manufacturing, an industry which expanded by 4.8 percent in 2019. This was the tenth year of expansion in production. As North American producers remain advantaged in producing critical resin inputs to sectors such as electronic products and appliances, the ability to export these goods with minimized barriers will be very important. Consumers, especially in emerging markets, are experiencing rising incomes and are increasingly able to allocate resources towards consumer electronics and household appliances. Resins demand is supported by growth in “smart” home appliances which incorporate computer and electronic product components. Innovations in plastics applications are at the heart of progress and development in these products. Globally, appliance production has grown steadily as consumer incomes and spending have increased and more people have entered the middle-class economy. With increased demand for smart products and advancements in technology, these products are increasingly available. Resins demand as inputs has been steady but, the consumption follows where downstream product manufacturing occurs. North American resins manufacturers have been challenged in accessing external markets for their exports as US trade tensions with partners has heightened. US resins and plastics exporters have faced steep retaliatory tariffs on most exports to China since the US-China trade war began. Most tariffs remain in place even with the Phase 1 deal. The tariffs have increased costs significantly and as a result, they have led to reduced demand for resins and products downstream in both the US and in China.

Domestic demand for resins in the manufacturing of appliances has declined as North American appliance production has declined. Regional production fell 2.4 percent in

Domestic demand for resins in the manufacturing of appliances has declined as North American appliance production has declined.

2019 following a 2.1 percent decline in 2018. In the U.S., appliance production decreased 3.6 percent in 2019. In Canada, appliance production recovered from a steep contraction in 2018 and grew 8 percent in 2019.

### **Furniture and Furnishings**

Furniture and furnishings represent another key end-use market for plastics. Like many of the other important end-use markets for resins, the North American furniture industry is also tied to the health of the housing market and the ability to export. Some stages of furniture and furnishing production are very labor-intensive. In Canada and the U.S. where labor unit costs are relatively higher than other locations, regional producers are less competitive and off-shoring is more prevalent. Furniture production was down 0.1 percent last year following a 0.6 percent decline in 2018. Similarly, North American production of carpeting and other textile furnishings is facing issues of sectoral decline.

### **Industrial Machinery**

Resins have important applications in both light and heavy industrial machinery. Growth in the industrial machinery market is often tied to the health of manufacturing as well as gains in capital goods production and business investment. A broad slowdown in manufacturing occurred in 2019. Increased barriers to trade and costs in employing global supply chains were a factor. The US industrial sector hit a soft patch with a decade low in factory activity in September and lingered in contractionary territory in the second half of 2019. Canadian manufacturing was also challenged with industrial activity stalling and contracting at times during the year. Manufacturing in key external markets was also hard hit. This negatively impacted demand for North American

exports of industrial machinery and all of the intermediate inputs into those goods. North American production of industrial machinery contracted at a 3.3 percent pace in 2019 reflecting a decline in the US that outpaced growth in Canada.

### **Plastics Products**

The plastics products industry is the key immediate customer industry for plastic resins. In turn, the plastics products industry supplies numerous end-use markets, such as those previously examined. During 2019, North American plastics products production contracted 1.3 percent. While production rose by 1.3 percent in Canada, production fell 1.6 percent in the US. This was the first annual decline in the US and for North America as a region since the recession in 2009. Demand from key end-use markets softened last year in North American and in foreign markets. North American exports of plastic products and other finished goods incorporating plastics resins fell by 7.8 percent in 2019 after rising in 2017-2018. Despite the relative advantage that North American region producers maintain, depressed demand abroad and steep tariffs on US exports to China contributed to contraction. North American plastic products exports fell from \$16.2 billion in 2018 to \$14.9 billion in 2019. Exports fell in both Canada and the United States. North American imports rose 2.3 percent (from \$34.8 billion in 2018 to \$35.6 billion in 2019).

*Information in this section is provided by ACC's Economics and Statistics Department. Commentary and estimates for the North American region primarily represent data for the United States and Canada. For more information on the business of chemistry visit [www.Americanchemistry.com/EconomicStatistics](http://www.Americanchemistry.com/EconomicStatistics).*