

# Raw Materials Update

## Q3 2017

### Macro-Economic Overview

Most economic indicators in the United States and abroad remain strong. American consumers are confident with moderate, stable inflation and low unemployment. Hurricanes Harvey and Irma impacted petrochemical production and transportation from the Gulf Coast. Currently, most supply risks from the storm have subsided but costs have elevated for chemicals and resins.

### Adhesives & Chemicals

**Acrylic Adhesives:** The propane and propylene markets were balanced prior to Hurricane Harvey and were without excess supply to absorb any supply disruption. Immediately following Hurricane Harvey, more than 40% of propylene capacity was down for at least one week. In addition, new on-purpose supply expected from Enterprise is delayed. Costs are expected to remain high for at least the rest of 2017.

**Hot Melt:** After substantial pressure on hot melt component pricing in Q1, costs are down to levels seen prior to the run-up and are projected to stabilize for the remainder of the year.

**Silicones:** Silicon metal and platinum pricing have remained stable in 2017. However, both are projected to see upward pressure moving into 2018 based on tight market conditions.

### Paper

NBSK pulp has been increasing consistently throughout the year following demand increases for fluff pulp and tissue. Pulp prices are not expected to decline anytime soon due to continued growth in demand, more unplanned producer outages and new regulations from the Chinese government banning recovered paper imports.

### Film

#### Polypropylene

Due to Hurricane Harvey, pricing in the short-term is expected to increase sharply with some easing by Q1 2018. Analysts suggest it will take until late October to get back to pre-Harvey production levels. Additionally, exports to Europe were increasing, as the arbitrage opened with the euro-USD exchange rate, and there were shortages in European supply.

#### Polyethylene

Prices unexpectedly remained elevated in Q3 ahead of the major production capacity expansion set to take place between Q4 2017 and Q1 2018. Pricing was driven by Hurricane Harvey disruptions and producers wanting to hold as much margin as they could before new capacity additions. Q4 pricing will continue to climb higher, but as new production capacity comes online throughout Q4 2017 and Q1 2018, pricing pressure will begin to subside.

#### PVC

Several PVC resin suppliers have issued Force Majeure due to supply interruptions caused by Hurricane Harvey. Calendered PVC suppliers are seeing increases of up to \$0.05/lb in the short-term, but pricing is projected to stabilize toward the end of the year.

#### Polyester

PET supply remained tight throughout Q3 due to a strong bottling season, driving pricing slightly higher. Pricing is expected to climb higher in Q4 due to the impact of feedstock supply on olefins and aromatics caused by Hurricane Harvey. However, once bottling season ends and feedstock production capacities get back to normal (late October), there should be some pricing stability with potential upside by Q1 2018.