



PAINTS

Raw Materials FACTS

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Ongoing Raw Materials Shortages Increase Paint Prices

It's rare to see mainstream media stories about paint. Earlier this year, outlets from the *New York Times* to *CNN* and *Bloomberg Businessweek* to a whole host of local newspapers were reporting on shortages in paint raw materials.

The culprits for such widespread attention: resins derived from acrylic acid, which hold pigments together, and methyl methacrylate, which helps to impart weather resistance. Both are found in the paint used for road markings and in latex paint. With these raw materials in short supply, municipalities were forced to curb summer road building and maintenance plans because there wasn't enough paint to do the job. That was news.

"I don't see any of this clearing up before the end of the year," George Pilcher, vice president of Chemquest Group, recently told *Bloomberg Businessweek*. "There won't be enough house paint to go around."

The market for acrylics and acrylates, which are derived from acrylic acid, was hit especially hard by plant shutdowns and mechanical failures this year. But many of the supply problems are shared by the broader industry.

That's because, in response to the recession, many manufacturers of paint raw materials were forced to take extreme measures to survive the downturn. They shut down plants, reduced inventories throughout the supply chain and laid off workers. Some in the industry say they went too far. Then, when demand picked up stronger than expected, suppliers were scrambling to make enough for everyone.

As demand resumed and companies brought plants back into production, the mechanical problems started. Parts broke, systems blew up, lines went down. Restarting ageing plants is not trivial. Some analysts also blame cutbacks in spending, possibly including maintenance spending, for the troubles. Whatever the reason, the end result was clear: supply shortages for many of the critical raw materials used to make paint.

With the housing and construction markets far from recovered, demand is still weak. That hasn't stopped the supply shortage from driving up prices, though. Most paint companies have

long-term contracts with raw materials suppliers. Even so, the contract price of acrylic acid rose over 80% in the past 12 months. When the market is short, paint companies are forced to buy additional raw materials on the spot market to ensure the ongoing supply of paint to their customers. Spot prices of acrylic acid more than doubled this year, increasing by 125%.

All of this is taking place in a weak demand environment. Yet suppliers are running flat out just to meet current demand. At the same time there is no slack in the system to allow suppliers to build inventories in anticipation of increased future demand. When that demand hits, the supply situation will only worsen. This will continue to put upward pressure on the price of paints into 2011. ■



FOCUS: TiO₂

Titanium dioxide (TiO₂) producers have been struggling with poor economics and thin margins for years. Then the recession hit and domestic demand dropped off a cliff as the construction and automotive markets dried up. TiO₂ producers were forced to take drastic measures to survive, including closing or idling plants and cutting costs. Several filed for bankruptcy.

Analysts say that 10-15% of global TiO₂ capacity was idled, some of it permanently. The industry adopted lean operating practices and ran down inventories throughout the supply chain.

The problem is that throughout the downturn demand slowed but never really stopped in developing countries. In 2010, demand rebounded faster than TiO₂ producers expected and they were caught without enough product to meet customers' needs. Producers say they have been running plants at full capacity but still have not been able to rebuild the inventories that act as a cushion to unexpected shocks in the supply chain. As

long as this remains the case, prices will continue to be volatile.

There's no easy fix for the problem. Existing capacity is not sufficient to meet current demand, which has not yet ramped up to pre-recession levels. The industry has no plans to build or add any significant new capacity in the next couple of years. This means that when the main consumer industries, like construction, return to health in the coming months and demand picks up, the supply shortages will only get worse. And prices will move even higher.

TiO₂ prices have climbed by more than 10% already this year. Major producers announced additional rounds of price increases for September and October. Some analysts expect yet another wave of price increases before the end of the year or in early 2011. This will continue to add to the cost of the pigments that go into every can of paint. ■

UPDATE: **Freight Costs**

Rising freight rates are also hitting paint costs this year.

The trucking industry was hit hard by the recession. When demand dried up, many trucking companies parked their trucks and laid off drivers. A large number went bankrupt. The American Trucking Association (ATA) confirms that more than 12% of U.S. truck capacity was lost in 2009.

Demand for transport is up 10% so far this year, the ATA reports. Now, even though the economic recovery is slow and unemployment rates are high, trucking companies say there aren't enough trucks or drivers to go around. This is causing shipping delays, and leading to higher freight costs.

Industry analysts are worried about what will happen once demand really starts to improve. It's not looking good. Trucking companies are playing it safe. They aren't willing (or, in some cases, able) to buy new trucks to expand their fleets. They are looking for more drivers, but are having a hard time finding them.

Trucks carry raw materials to paint manufacturers and then distribute finished product to stores. When freight rates rise, paint prices must follow suit. That is what is happening this year. In some markets, shipping rates are up as much as 40% in 2010. This, in turn, is driving up the cost of paint. ■



UPDATE: **Packaging Costs**

Rising packaging costs hit paints coming and going. They get added to the cost of raw materials shipped to paint manufacturers and to the cost of plastic pails and metal cans used to package paint.

High density polyethylene (HDPE), a plastic derived from petroleum, is used to manufacture plastic paint pails and large industrial totes used to ship paint raw materials. By early September, higher feedstock costs, production issues and tight supply had pushed the cost of HDPE up more than 12% since the end of 2009.

Steel is used to make the cages that enclose industrial totes. It's also a component of tin plate, which is used to make paint cans. Steel demand ramped up faster than manufacturing this year. This supply shortage, combined with a doubling of iron ore feedstock costs, led to a 23% rise in steel prices this year.

The price of tin, which is applied in a thin layer over sheets of steel to make tin plate, climbed almost 40% in the past 12 months. This is boosting the cost of gallon paint cans. ■

Cloudy with a Chance of Price Hikes



Weather conditions can mess with a perfectly applied coat of paint. Surprisingly, they can also affect the cost of the raw materials that make up the paint.

This year, global weather conditions are driving up the cost of agricultural commodities, including the soya oil used as a natural binder in paint. From drought in Russia and Australia to too much rain in parts of Canada, weather extremes are reducing the global wheat harvest. This forces livestock producers to switch to other grains, like corn and soy, to fatten their animals to produce steaks and burgers for dinner tables. This increases the demand for, and in turn drives up the prices of, related commodities like soya oil. By early September, soya oil prices had jumped almost 20% in the last 12 months.

Late summer and fall weather patterns can also affect the costs of many paint raw materials that are derived from petroleum. September and October are peak months for hurricanes. This year, the hurricane factory in the Atlantic Ocean is expected to kick into overdrive to produce an especially active season. So far the storms have petered out or veered away from the Gulf Coast region that is home to many of the country's petroleum refineries and chemicals plants.

If a storm does enter the Gulf region and forces operations to shut down, the prices of many petroleum-based feedstocks could spike. The hurricane impact—if it materializes—would hit paint prices in the new year. ■