



... Transformer market prices will rise due to a NOMEX price increase?

Transformers are primarily made up of a pair of windings called primary and secondary and linked by a magnetic core. Generally, 80% of a transformer price is determined by the core steel, wire and insulation materials. One of the most widely used and best insulation materials in the market is “Nomex” which gives transformers a 220°C insulation level. This material is manufactured by Dupont USA and complies with IEC 60216, IEEE98 and UL746B standards. The thermal index is limited by IEEE and UL to selected values such as: 130°C, 155°C, 180°C and 220°C. Nomex 410 has been assigned a thermal index of 220°C which is widely used in the industry. One of the ingredients used in Nomex is called *m*-Phenylenediamine or in short MPD. This key ingredient is primarily manufactured in a factory in Eastern China.

On March 21st this factory had a major explosion which killed 64 people and injured hundreds more. The blast occurred in an industrial park in the city of Yancheng, north of Shanghai, and it was one of China’s worst industrial accidents in recent years. The explosion created a crater and more than 900 firefighters were deployed to extinguish the fire that burned into the night. As a result of this tragedy, the supply of MPD has been disrupted and resulted in other factories around the world making this ingredient to also raise their prices drastically. Dupont Nomex published and circulated a letter stating that Nomex prices will increase by at least 8.5%.



Most of us in the industry are familiar with unstable transformer prices because of recent copper, aluminum and core steel volatility. This is also true with the upcoming Nomex price increase. Typically, the amount of Nomex used in a transformer varies from 6% to 12% of its base cost. Transformer prices are expected to increase by the same percentage. It is important to note that this increase will be across all transformer manufacturers, not just MGM.

During the peak of the Gulf war there were some shortages of Nomex as that is a primary ingredient of Kevlar used in body armor. At that time, it was addressed through allocations, so price increases were minimal. The explosion in China leaves the Nomex supply vulnerable to major cost increases and shortages. We will do our best to keep you and our customers advised on the situation. MGM recommends that you let your customers know about this situation, so they are not caught off guard by shortages or increases. Of course, the best strategy is always to get orders booked and into engineering so we can secure the materials needed before their prices go up or become unavailable.