



Applications Notes

Moisture in Crumb Rubber

Optimizing moisture levels not only increases yield, but also the efficiency of the drying operation.

Synthetic Crumb Manufacturing Process – Emulsion Crumb Process

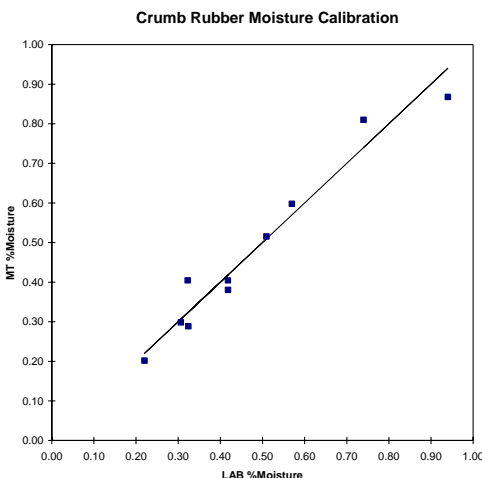
The first stage of this process involves the polymerization of butadiene and styrene polymers to form a milky white emulsion termed Latex. The reaction is stopped before completion, owing to a fall off in the reaction rate. Quality of product and monomers are recovered from the latex stream prior to it being stored.

In the second stage, latex is pumped to coagulation vessels where brine and diluted sulfuric acid are added. This causes the emulsions to break, releasing the styrene-butadiene copolymer. The crumb and brine acid slurry is separated by screens, and the crumb is pressed before being dried on a belt dryer. The dried product is baled and weighed.

Measurement Location

The gauge is usually located 8" above and perpendicular to the moving conveyor post dryer. An air or water cooling option may be required in order to prevent the gauge electronics from overheating. An air purge assembly is essential in order to prevent both dust collecting and steam condensing on the gauge viewing window.

Measurement Performance



A typical moisture measurement range is 0-3%. Accuracy is of the order of +/- 0.1%.

— y = x
■ Calibrated MT