

Intelligent Additive Solutions for the Polymer Industry

A circular inset image in the top left corner shows a stack of light-colored wood planks on the left and a stack of colorful CD/DVDs on the right. The background of the entire page is a warm, golden-brown gradient with a subtle, wavy pattern.

When it comes to plastics additives, Struktol's vast chemical experience is translated into the most intelligent solutions available anywhere. Each of Struktol's 30+ plastic additives are tested and retested to insure maximum product quality and performance consistency.

Struktol manufactures a complete line of additives that function individually or in combination as adhesives, lubricants and surfactants. They are all accompanied by a wide range of benefits.

By using STRUKTOL® Intelligent Additive Solutions, processors can realize:

Improved Physical Properties

A compounder was unable to meet the minimum Izod Impact strength properties required for an injection molding application using a 30% wood-filled high-impact polystyrene. Evaluations done by the Struktol Technical Service Laboratory proved that by adding approximately 1% of STRUKTOL® TR 071, the resulting compound exhibited 15% higher impact properties and significantly improved processability. In addition, by using STRUKTOL® TR 065 along with TR 071 at equal loading levels, the customer was able to realize a more than 30% increase in the impact properties of the compound!

Improved Performance

Color concentrates typically require a dispersion aid to adequately disperse pigments in the polymer carrier. These aids, typically polyethylene wax or ethylenebisstearamide (EBS), can be critical to the performance of very expensive pigments. For many organic and inorganic pigments, STRUKTOL® TR 251 used in place of EBS has been shown to significantly improve the pigment dispersion leading to increased color uniformity, higher chromaticity and more vivid colors at a given pigment level. What does this mean to the concentrate manufacturer? Potentially lower usage levels of very expensive pigments resulting in significantly lower per pound cost of the concentrate while still maintaining equivalent or better color development!

Cost Reduction

An injection molder making plastic coat hangers from recycled polyolefin was able to see a 2% reduction in cycle time using approximately 0.5% of STRUKTOL® TR 016 as an internal lubricant and mold release agent. This 2% reduction in cycle time reduced his overall manufactured cost per part by more than 2%, saving him a significant amount of money and increasing his annual production capacity by a whopping 50,000 parts! In this case, an increased initial raw material cost was easily offset by greatly improved production capabilities.

A circular inset image in the bottom left corner shows several white, cylindrical plastic parts, possibly moldings or components, stacked together.

Struktol Intelligent Additive Solutions are the result of a partnering effort between our customers and our sales and technical staff. While many compounders may be comfortable with their current additive supplier, with the investment of a little time in analysis and testing of Struktol additives, the return will be well worth the effort.