

Additives - be careful!

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From a French proverb: "Enough is better than too much".

For those extruding everyday materials as ethylenes, polyesters, nylons, ABS, plasticized vinyls etc., you may think there are no materials related problems. However, the more additives in your mix, the more challenges you may have. Volumes could be written on the possible problems arising from too much or too little. The quality of resin or additive may contribute to the problem. Don't forget, additives will vary in quality (titanium dioxide or slip agents for example).

Today, we are enjoying a host of colors in plastics. I ran into a situation a few years ago that taught me a lesson. We were custom extruding sheet, night and day. On this particular job, a sample color chip was furnished. A few days after shipment, we received a call from the customer—color did not match! It was found that the color of the 1/16" thick styrene sheet was different when laid on the table compared to holding it! Consequently, we had to eat 500 lbs. of material that was just a hair off in color. Understand your customers color test specifications. Monitor your masterbatch for color and concentration consistency.

A skip agent is not always compatible with the processing aid used in wetting out the plastic. There are times when the processing aid will affect the properties of the finished product.

Many companies produce products involving color, slip agents, processing aids, and different carrier resins. Any one of these could cause problems. (Too much or too little or the combination of additives may not be compatible). Companies don't develop products with optimum results overnight. Do not underestimate the potential problems. Carefully develop your formulations and process conditions, keep good process records, and establish many quality monitoring tests.

- D. Biklen Springbriar

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