Degradation and rheology at injection moulding of some polymers

Background

Tetra Pak is the world’s leading food processing and packaging solutions company. Working closely with our customers and suppliers, we provide safe, innovative and environmentally sound products that each day meet the needs of hundreds of millions of people. Operating in more than 170 markets with over 20,000 employees, we believe in responsible industry leadership, creating profitable growth in harmony with environmental sustainability and good corporate citizenship.

The polymers used by Tetra Pak are mostly polyolefins. These polymers need to be stabilised in order not to be degraded during processing. In this case it’s mainly injection moulding that is of interest. What additive package is the right one with respect to our process and system?

Scope of work

1. Effects of different antioxidants (literature and experimental studies).
2. Effects of pigment (e.g. TiO2).
3. Shear induced degradation.
4. Thermal degradation.
5. Combination effects.
6. Documentation & recommendations

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