Film Extrusion

APPLICATIONS

Material Purity - Defect Detection	**Sulfone Materials** **PEEK** **PAEK**
Consumer Market Applications: Baby Bottles	**Duradex**
Slot Liners for Electric Motors	**Ketaspire** **Avaspire**

THEORY, KNOWLEDGE, & MODELS

Definitions & Abbreviations:

OCS: Optical Control System

OCS is a German based company that manufactures equipment for analyzing the quality of extruded polymeric materials.

Alpharetta has 2 film lines that are manufactured by OCS:

- OCS ME20/26: The "small OCS" produces film at 4" and 6" widths.
- OCS ME30V4: the "large OCS" can produce film up to 12" wide.

FSA: Film Surface Analyzer

The film surface analyzer is a piece of equipment that is used on both of Alpharetta's film extrusion lines. The FSA detects defects on extruded films through two methods:

- Transmission: Light is passed through the extruded film and the variance in light that reaches the detector is measured. This method is typically used for transparent / translucent films.
- Reflectance: Light is projected onto the surface of the extruded film. The detector is offset 90° from the light source and detects variations in the light that is reflected off of the surface. This method is typically used for opaque films.

Both of Alpharetta's film extrusion lines have FSA that can detect in transmission and reflectance modes.

CAPABILITIES

Bollate films extrusion capabilities

Alpharetta film extrusion and post-processing capabilities

Alpharetta Film Line ADL Project Summary Report

This report provides a brief description of recent film extrusion trials, experiment objectives, observations, analysis, and conclusions.

Alpharetta Film Line Training and Operation Guide

This guide summarizes the training provided by Southern Analytical, Inc. It is a basic guide to the various parts of the OCS film lines and the procedures involved with preparing the film lines for extrusion trials. This guide is currently under construction.

Duradex D-3000 BB HF Defect Detection

This report is a summary of the work that has been completed on a project that is managed by ADL for the Life Solutions CTD team. The objective of this project is to validate a defect detection method on Duradex D-3000 BB HF and to qualify a lot of resin to be used as a baseline for defect analysis.