Extrusion Coating Manual, Fifth Edition: Table of Contents

CHAPTER 2 – Web Handling and Treating Equipment

Section 1 – The Basics of Web Handling
Ron Lynch, RJLynch and Associates, LLC

Section 2 - Winding
David R. Roisum, Finishing Technologies, Inc.
R. Duane Smith, Davis-Standard LLC

Section -3 - Continuous Unwinding and Splicing Technology and Equipment
R. Duane Smith, Davis-Standard LLC

Section 4 - Corona Surface Treatment
Tom Gilbertson and Mark Plantier, Enercon lndustries Corporation

Section 5 - Ozone Surface Treatment
Tom Gilbertson and Mark Plantier, Enercon lndustries Corporation

Section 6 - Plasma Surface Treating
Rory Wolf, ITW Pillar Technologies

Section 7 – Flame Plasma Surface Treatment
Joseph DiGiacomo, Flynn Burner Corporation

Section 8 - Drive Systems for Web Handling
Clarence Klassen, KlassENgineering Inc.

Section 9 - Slitting Technology and Equipment
Dave Rumson, Slitting Consultant and Educator

Chapter 3 – Process Variables and Controls

Section 1 - General Processing Guidelines for Extrusion Laminating and Coating
Tom Bezigian, PLC Technologies Film, Sheet & Extrusion Consulting Co.

Section 2 - Accurate Melt Temperature Measurement
Andrew W. Christie, SAM North America LLC
Beth M. Warren, Optex Process Solutions, Inc.

Section 3 – Adhesion in Extrusion Laminating and Coating
Barry A. Morris, E.I. du Pont de Nemours & Company, Performance Materials

Section 4 - Fundamentals of Coextrusion and Layer Multiplication
Thomas Bezigian, PLC Technologies Film, Sheet & Consulting Services

Section 5 - Weight - Thickness Measurement and Control for Extrusion Coating
Hector Marchand, NDC Technologies

Section 6 - Extrusion Process Variables – Display and Control
Andre Icso, Davis-Standard LLC, Circonix Technologies Division

CHAPTER 4 – Materials: Substrates and Extrudates

Section 1 – Coated Paper and Paperboard Substrates
Donato Ventresca and Gregory W. Welsch, Trinseo LLC

Section 2 - Primary Film Substrates
Doug Dodrill, Rollprint Packaging Products, Inc.

Section 3 –Aluminum Foil Substrates
Guenter H.Schubert, Hydro Aluminum Rolled Products GmbH

Section 4 – Sealants and Sealing in Flexible Packaging
Mustafa Bilgen, The Dow Chemical Company

Section 5 – Polyethylene Resins for Extrusion Laminating and Coating
Gary D. Jerdee, Chevron Chemical

Section 6 – Single-Site and Metallocene Polymers and Copolymers for Extrusion Laminating and Coating
Jim Cooper, The Dow Chemical Company

Section 7 -Linear Low-Density and High-Density Polyethylene Resins for Extrusion Coating
Rajen M. Patel, The Dow Chemical Company

Section 8: – Polypropylene Resins for Extrusion Coating
Jamie Glover, Flint Hills Resources

Section 9 - Ethylene Vinyl Acetate Resins for Extrusion Coating
Gary D. Cheney, Equistar Chemicals, LP
Revised by: Scott Weber, Celanese International

Section 10 – Ethylene Acrylate Copolymers for Extrusion Coating
Michael G. Baker, Westlake Chemical Corporation

Section 11 – Acid Copolymers for Extrusion Laminating and Coating
Original author: John D. Vansant (retired), E.I. du Pont de Nemours & Company, Packaging & Industrial Polymers
Updates by: Scott B. Marks, Barry A. Morris, E.I. du Pont de Nemours & Company, Performance Materials

Section 12 - Ionomer Resins for Extrusion Coating
Original author: John D. Vansant (retired), E.I. du Pont de Nemours & Company, Packaging & Industrial Polymers
Updates by: Scott B. Marks, Barry A. Morris, E.I. du Pont de Nemours & Company, Performance Materials

Section 13 - Extrudable Adhesive Resins for Coextrusion Laminating and Coating
I-Hwa Lee and Barry A. Morris, E.I. du Pont de Nemours & Company, Performance Materials

Section 14 – Polyester Resins for Extrusion Coating
Bruce Foster, PolyKnows LLC

Section 15 - Ethylene Vinyl Alcohol (EVOH) Resins for Coextrusion Laminating and Coating
Ronald H. Foster, EVAL Company of America

Section 16 - Biopolymers and Sustainability in Extrusion Coating
Bruce Foster, PolyKnows LLC

Section 17 - Polymer Melt Rheology for Extrusion Coating
Olivier Catherine, Cloeren Incorporated

Section 18 - Chemical Primers for Extrusion Coating
David J. Bentley Jr., RBS Technologies, Inc.
Fred M. Singer, Mica Corporation

Chapter 5 - Structure Development, Nomenclature and Testing

Section 1 - Introduction to Structures
Scott B. Marks and Barry A. Morris, E.I. du Pont de Nemours & Company, Performance Materials

Section 2 - Critical Requirements for Structures
Thomas J. Dunn, Flexpacknology LLC

Section 3 – Quality Control (QC) and Physical Testing
Thomas J. Dunn, Flexpacknology LLC

Section 4 - Structure Writing and Nomenclature
Scott B. Marks, E.I. du Pont de Nemours & Company, Performance Materials

Chapter 6 – Troubleshooting and Maintenance

Section 1 - Introduction to Troubleshooting Extrusion Coating
Jim Cooper, The Dow Chemical Company

Section 2 - Advanced Extrusion Laminating and Coating Troubleshooting Guide
Andrew W. Christie, SAM North America LLC
Beth M. Warren, Optex Process Solutions, Inc.

Section 3a - General Troubleshooting Template for Extrusion Laminating and Coating
Jim Cooper, The Dow Chemical Company

Section 3b - Production Floor Reaction Plans for Extrusion Laminating and Coating
Warren Durling, The Clorox Company

Section 4 - Predictive and Preventive Maintenance
Thomas J. Dunn, Flexpacknology LLC

Section 5 - Extrudable Polymers: Purging and Resin Transitions
Scott B. Marks and Barry A. Morris, E.I. du Pont de Nemours & Company, Performance Materials
John D. Vansant (retired), E.I. du Pont de Nemours & Company, Packaging & Industrial Polymers

Keywords

Index

Section Editors Biographies

Editors' and Authors' Contact Information