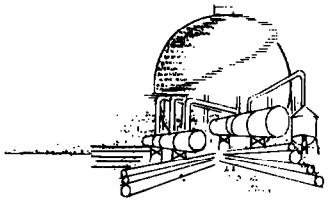
Blends of Thermoplastic Polymers, November 1986



PROCESS ECONOMICS PROGRAM

SRI INTERNATIONAL
Menlo Park, California
94025

Abstract

Process Economics Program Report No. 175

BLENDS OF THERMOPLASTIC POLYMERS

(November 1986)

Blends of two or more thermoplastic polymers provide a combination of properties and price not found in a single polymer, copolymer, or reinforced plastic. Production is growing rapidly. In this report, SRI examines the technology of thermoplastics blends, particularly ways of preparing stable blends from components that are not always compatible.

This report focuses on blends of high-performance polymers with low-cost polymers, particularly injection-molding and extrusion grades of engineering thermoplastics. Properties and compositions of modified ABS resins, blends of ABS with other polymers, and polycarbonate blends are examined in detail. Trade-offs in eight key properties for more than 100 commercial blends are displayed in a new graphical presentation.

The report also reviews equipment, procedures, and costs for producing blends on a commercial scale.

SRI International

Report No. 175

BLENDS OF THERMOPLASTIC POLYMERS

by ROBERT H. SCHWAAR
with contributions by CHI -WEI LEE

November 1986

A private report by the

PROCESS ECONOMICS PROGRAM

Menlo Park, California 94025

For detailed marketing data and information, the reader is referred to one of the SRI programs specializing in marketing research. The CHEMICAL ECONOMICS HANDBOOK Program covers most major chemicals and chemical products produced in the United States and the WORLD PETROCHEMICALS Program covers major hydrocarbons and their derivatives on a worldwide basis. In addition, the SRI DIRECTORY OF CHEMICAL PRODUCERS services provide detailed lists of chemical producers by company, product, and plant for the United States and Western Europe.

CONTENTS

CONTENTS

ILLUSTRATIONS

TABLES

TABLES