



Faculté des sciences appliquées

FSA

MAPR2454 Processing of polymeric materials

[30h+15h exercises] 4 credits

This two-yearly course is taught in 2005-2006, 2007-2008,...

This course is taught in the 2nd semester

Teacher(s): Christian Bailly, Sophie Demoustier, Jacques Devaux, Pierre Godard, Alain Jonas, Roger Legras (coord.), Bernard Nysten

Language: french

Level: 2nd cycle course

Aims

The main objective of the course is to help students understand the link between the rheological properties of polymeric materials, their processing behaviour and their final properties. A second objective is to familiarize the students with the major classes of polymer processing methods. Considering the thermal stress experienced by a polymer during a typical melt processing step, it is also essential to understand thermal degradation mechanisms and the action of stabilizing additives.

Content and teaching methods

The major processing methods for thermoplastic materials are presented in the form of seminars. The link is made between viscoelastic properties, the behaviour of the material during extrusion and the final properties. The issues of thermal degradation and stabilization are also discussed.