



## Newsletter Elasto-Plast

09/19

2019/1

### In this newsletter

- The fascinating world of thermoplastic elastomers
- The players behind Elasto-Plast
- What can we do for you?

### Contact Us

<https://interreg-elastoplast.eu/>  
as@centexbel.be  
ids@centexbel.be  
sco@centexbel.be

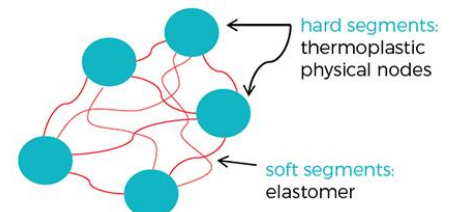
## The fascinating world of thermoplastic elastomers

“Thermoplastic elastomers (TPE)” are a group of plastics, which are elastic at room temperature and which behave as thermoplastics at elevated temperatures. TPE combine properties related to common elastomers (flexibility, elasticity) with processing properties related to thermoplastics. Despite an early introduction ('50ies) of these materials, it wasn't until the 90ies when a steady growth was seen. TPE are most frequently used in applications in which conventional thermoplastics do not meet the requirements, such as abrasion resistance and flexibility, or to ameliorate impact properties of commonly available thermoplastics.

### Thermoplastic elastomers (TPEs)

Combining the properties of elastomers with the processability of thermoplastics

Copolymers or mechanical polymer blends



Thermoplastic elastomers are one of the fastest growing markets in the plastics industry (yearly >6%). TPE have endless possibilities. They are abundantly used for automotive applications, but they are also increasingly applied in sporting goods, medical and food applications, combining flexible and elastic properties with a soft touch feeling.

Notwithstanding the increasing market share of TPE, a global knowledge of these materials is limited. There is a need for knowledge and expertise to further optimise commercially available TPE, the development of a new generation of TPE, but also research into new innovative processing techniques (3D-printing) and new application within the TPE business.

The Elasto-project aims at:

(1) familiarising the companies, within the in de INTERREG FWVL region, with the diverse possibilities related to thermoplastic elastomers to increase product properties or to improve the processability of classic polymers by gaining knowledge regarding morphology, processing conditions and properties of thermoplastic elastomers.

(2) the development of unique technologies (functionalised elastomers, shape memory materials, 3D-printed elastomers) within the INTERREG FWVL region, which can be shared with interested companies in order to fully implement potential opportunities.



By means of a quarterly newsletter, the Elasto-Plast team wants to show the progress of the project, while also discussing recent developments within the TPE industry. On a regular basis interesting publications will be submitted on the website, where information concerning past and future events will also be displayed.

For more information, please visit our website: <https://interreg-elastoplast.eu/nl>

The Elasto-Plast team

## The players behind Elasto-Plast

Research in different areas within TPE is impossible without an international cooperation with different renowned research centres. A short overview of the different partners and their contribution to this project:

### Partners/Partenaires:



### Geassocieerde partners/Partenaires associés:





### Centexbel

- Research in foaming behaviour of different types of TPE
- Structure activity relations of commercially available TPE



### Materia Nova

- Structure activity relations of commercially available TPE.
- Research to improve properties of commercially available TPE



### URCA, IMT Douai, Armines

- Processing of commercially available TPE through innovative 3D-printing techniques: using filaments (FDM) or using pellets (Freeformer)
- 3D-printing of newly developed TPE



### ULille

- Development of TPE of the second generation ("multiblock copolymers")



### KU Leuven

- Development of new biobased TPE of the second generation

More information concerning the different partners can be found [here](#).

## What can we do for you?

Next to supplying general project information through our newsletter and website or through organising workshops and training sessions, we would like to give you support concerning your company specific questions.

The Elasto-Plast partners would be happy to assist and support you in obtaining the right answers related to your elastomer questions. These generated answers and project related results will help to increase your company specific knowledge and will result in an increment of your innovation potential. The project contributors will

### Partners/Partenaires:



### Geassocieerde partners/Partenaires associés:



PLASTICS INNOVATORS



help you in implementing and, if necessary, adjusting these project related results to your specific industrial requests.

The company specific support includes research and, if necessary, product development. An additional monitoring in terms of state support will be applicable (De-minimis declaration).

More information regarding further company specific support can be obtained from relevant Elasto-Plast partners within your region.

We would be happy to assist you!

---

### Partners/Partenaires:



### Geassocieerde partners/Partenaires associés:



PLASTICS INNOVATORS

