

# ELIX files for Moldflow and Moldex3D simulations

### Service

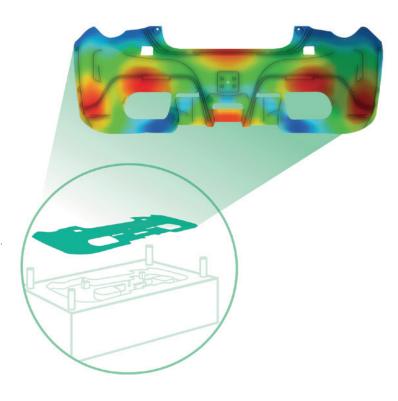
Moldflow and Moldex3D files available for ELIX grades to select the best material for a specific application and optimise the mould design and moulding process with the help of simulations.

# **Description**

Nowadays to have a robust injection process, it is essential to run simulations that help you choose the best material, optimise the mould design (hot runners, cavities, gates design and location) or resolve issues that may arise during the production process.

Moldflow and Moldex3D are the most common programmes to simulate the injection moulding. The simulation covers all key points in an injection process, such as filling, packing, cooling, warpage, etc.

Material properties have a great influence on the simulation. Therefore, an extensive study must be performed to characterise each material and create a file containing the relevant information for the simulation. At ELIX, we have characterised most of our ELIX ABS, ABS/PC and PC/ABS grades in order to successfully run the simulation in both Moldflow and Moldex3D software at the early stage of the project, when the material must be selected.\*



### **Objectives**

- ELIX Polymers aims to support all partners during the simulation process.
- Moldflow and Moldex3D files are provided to determine the best ELIX grade for a specific application.
- ELIX Polymers offers knowledge based on experience to recommend the best material.

## **Features**

Moldflow and Moldex3D files are available in their database for most ELIX grades.

Material status can be upgraded on request.

Moldflow and Moldex3D simulations allow:

- Calculation of parameters such as total displacement, deformation, filling time, maximum pressure, etc.
- Warpage and shrinkage prediction and compensation.
- Prediction of possible defects such as weld lines, high shear stress or short shot areas.

### Benefits

Clear advantage in selecting the best material: optimised injection process and final parts.

Possible optimisation of mould channel system simulating with the real rheology when selecting material in advance.

Avoid tooling errors and rework. Reduction of prototype moulds.

Higher quality parts. Lower scrap rate.