



## COOLgrafeno<sup>®</sup>

### GRAPHENE AS QUICK COOLING SOLUTION OF (MICRO)MOLD INSERTS

The *COOLgrapheno* project aims to solve the current problem of warp that affects the molding of small parts. The quality required for thin-wall injected parts, combined with a significant increase in production rate of the plastic parts, obliges the Molds Industry to adopt solutions that allow special cooling of the inserts, which in addition to inducing an improvement in the geometric dimension quality also improve the optical characteristics of the surfaces. The focus of industrial research affects the thermal conductivity of the insert material by replacing it with a new composite material, where the reinforcement has thermal characteristics of exception, the graphene. Since they are insignificant numbers and their external and internal geometrical settings (cooling system) can assume high degree of complexity, these will be produced by Additive Manufacturing, in particular, by Selective Laser Melting (SLM).

#### CONSORCIUM

Lead Promoter: **FAMOLDE**

#### Co-Promoters:

CDRSP-IPLeiria;  
UCoimbra

