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Project designation - ChromiumLike - Development of chromium-free polymer-based automotive components with improved touch sensation (cold touch)

Project code: 3412

Main goal: CHROMIUM LIKE project aims at the development of innovative solutions for car interior plastic components without using chromium but both the looks and cold touch of chrome, enhancing the performance for thermal tactile perception, producing a metallic touch.

Intervention region: North of portugal

Participant entities:

- SIMOLDES PLÁSTICOS, SA
- CeNTItvc: Centre for nanotechnology and smart materials

Start date: 04-01-2016

Conclusion date: 31-12-2018

Total eligible cost: 628.745,68 €

European Union financial support: FEDER - 340.809,25 €

Activities and expected results:

Main results:

The preliminary results obtained in the framework of the ChromiumLike project, targeting the production of plastic components for automotive interior parts with visual chrome effect and cool touch perception, comprises the development of new functional composites with embedded nanoparticles of high thermal effusivity combined with chromium-free coatings functionalized with nanostructured materials of high thermal effusivity, resulting in plastic based substrates with chrome visual effect and cool touch.

During this project, and in parallel with the development of the envisioned proof of concepts, for chrome effect and cool touch, all the developed solutions were assessed in terms of product performance and process implementation in regular injection and coating production lines for the manufacturing of coated plastic parts.

Communication and dissemination activities:

Automotive interiors (2017) – poster and oral presentation

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Figure 1 Left side - poster of ChromiumLike project in Automotive Interiors 2017; right side – oral presentation of Chromium Like project, at Automotive Interiors forum – Interiors Innovation & Design.

Normedica AJUTEC 2017 - poster



Figure 2 Chromium Like Poster in Normedica AJUTEC 2017.

European Conference on Composite Materials (2018) – conference paper and oral presentation

Compounding world expo (2018) - ChromiumLike stand

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Figure 3 ChromiumLike stand at Compounding World Expo 2018.

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Colaboration with entities of the I&I system

The research and technical development work within the ChromiumLike project is being performed in partnership with CeNTI - Centre for Nanotechnology and Smart Materials. This close collaboration has demonstrated to provide added value for the successful and timely accomplishment of this project.