15 ANS DE R&D POUR L'INNOVATION DES ENTREPRISES

COMPOSITE

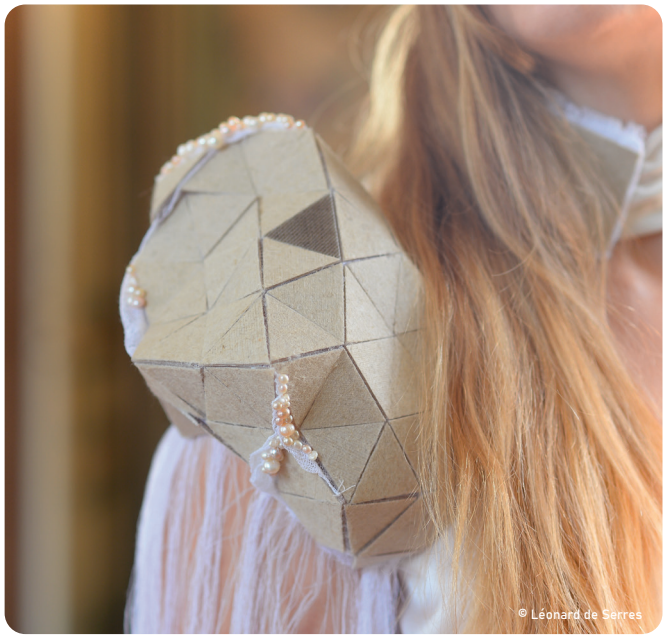
Showcasing French resources by combining linen and recycled plastics

Our experts are harnessing ThermoPRIME® and Thermosaïc® technologies, developed by CETIM Grand Est, to reformulate thermoplastics and form films or composite sheets, which are then reinforced by carbon, glass or vegetable fibres for an infinite variety of uses.

Carnot MICA Institute

Scientific / technological breakthrough

ThermoPRIME® technology blends fibres and recycled thermoplastics.
The pilot line uses recycled thermoplastics processed into film in reels or in sheets. The linen fibre is then placed between one or more polymer films. Next, the temperature is raised to facilitate fusion of the plant material and the polymer. After being pressed a number of times in continuous production, the composite plate or semi-finished product can be thermoformed by sliding it into a mould, cut, glued, etc. The fibres act as reinforcers by slipping into the matrix or binding the polymers.



Competitive advantage for the economic stakeholders

Composite sheets forming a central polymer sandwiched between linen fibres create a unique finish and a sensorially stimulating material. The choices are endless: matte, gloss, satin, smooth, embossed, slippery, clingy... and limited only by our imagination.
Natural or coloured linen, non-woven fibres or fibres woven in a thousand and one different ways...
This environmentally-friendly process (heating parameters, eco-friendly components) is pioneering the development of a new material with multiple decorative finishes.

INSTITUT CARNOT MICA

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