

New Notice Board released

On December 2014, the updated Life+ Glueless Notice Board has been released and displayed in Fameccanica key areas and laboratories.

The notice board is required by the EU commission as a project deliverable and has the aim to convey the essence of a specific LIFE project action, in this case, the Fameccanica ongoing project for environmental impact reduction in Absorbent Hygiene Products manufacturing.



The new Notice Board displayed at entrance of Fameccanica Technical Department

 **LIFE+PROJECT**
AS NATURAL AS WE CAN

WHAT IS EU'S LIFE PROGRAMME?

"LIFE is the EU's financial instrument supporting environmental, nature conservation and climate action projects throughout the EU.
The general objective of LIFE is to contribute to the implementation, updating and development of EU environmental policy and legislation by co-financing pilot or demonstration projects with European added value."

MANCHESTER 1824 CCaC Carbon Footprinting Tool
Results will be available with University of Manchester

FAMECCANICA AND LIFE+

On July 1st, 2013 Fameccanica was granted financial support to project proposal N° LIFE12 ENV/IT/000423 concerning the development of means for cost savings in diaper production processes. The project shall run for three years, starting July 1st, 2013 to Dec. 31st, 2016.

The project LIFE Glueless "Retrol based Glue and Energy consumption reduction in diapers production processes", aims to demonstrate to industry and policy makers that **significant environmental impact reduction** in Absorbent Hygiene Products (AHP), such as diapers, can be realized, with appropriate solutions that will be the subject of this project.
The project will showcase how environmental impact can be reduced, while **cost competitiveness can be held or even increased**.

GLUELESS™ lamination of back ears for baby diapers

The first achievement of the project has been reached at the end of December 2013, with the completion of the qualification of a new **GLUELESS™ lamination concept for back ears for baby diapers**.

This GLUELESS™ construction is now a commercially available solution with Fameccanica laminating machine model FLS. Fameccanica is known for its patented solution for a

Unique technology for in-line processing of breathable laminates with ultrasonically bonded transpiring spots

The latest improvement has been reached with the complete elimination of the glue applications in this laminate and this is by itself, an evident step in the direction of cost saving in diaper production processes and environmental impact reduction.

GLUELESS™ application of ADL is under lab test qualification

Fameccanica has started the qualification of its GLUELESS™ application of ADL (acquisition-distribution-layer) on diaper top-sheet.

The objective of this project phase is to make available a proven technology to be used on Fameccanica converters with commercially available raw materials and a validated set of product performance data.

The initial lab test demonstrated that the process and technology developed are appropriate to realize this type of application at the full speed of the commercially available diaper machines.

Also, the product performance validation phase shows that the key performance indicators selected (peel force test and fluid handling-acquisition) meet the initial objectives.

GLUELESS™ elastic application

Qualification tests

Fameccanica has started the qualification of its GLUELESS™ application of elastic strands and the initial lab test demonstrated that the equipment utilized by Fameccanica on the basis of a patent owned by Cesa Engineering France is appropriate to realize this type of application at the target performance.

The engineering phase will follow to make available in the future a proven technology capable to fit the real production conditions and requested speed of Fameccanica high performance converters.

Kick-off of LCA activities at University of Manchester started on time in December. 2014.



One of the key steps of the Fameccanica Life+ Glueless Project is the validation of environmental impact by means of Life Cycle Assessment

(LCA).

This action will be carried out by the University of Manchester (UNIMAN), using the CCaLC tool. The staff of experts at UNIMAN to carry out this crucial tasks, will be led by Professor Adisa Azapagic, Professor of Sustainable Chemical Engineering.

According to the initial schedule, these activities were scheduled on Month 18 from the project start. On December 10, 2014 the Fameccanica team, led by Mr. Francesco D'Aponte, Technical Director at Fameccanica.Data, and the UNIMAN team, led by Professor Adisa Azapagic, officially started the activities in a dedicated session at the University of Manchester. At the meeting there was also Mr. Diego Gualtieri (Glueless Technical Project leader at Fameccanica), Mr. Valerio Valenti (Glueless Finance controller at Fameccanica), Ms. Simona Andreea Popa (Life Cycle Analysis Research Assistant at Uniman).

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Mr. Francesco D'Aponte, Ms. Adisa Azapagic, Ms. Simona Andreea Popa, Mr. Valerio Valenti, Mr. Diego Gualtieri during the kick-off event at University of Manchester on December 10th, 2014



GLUELESS ADL test stand

GLUELESS™ application of ADL: process validation at target speed

After the activation of the new ADL test stand, the Fameccanica Team successfully completed the validation of GLUELESS ADL application at the target speed of 1000 pieces/min.

The test proved that the application is stable in terms of respect of tolerances and reliable in terms of process.

The test will then continue with collateral activities of sealing pattern optimization.

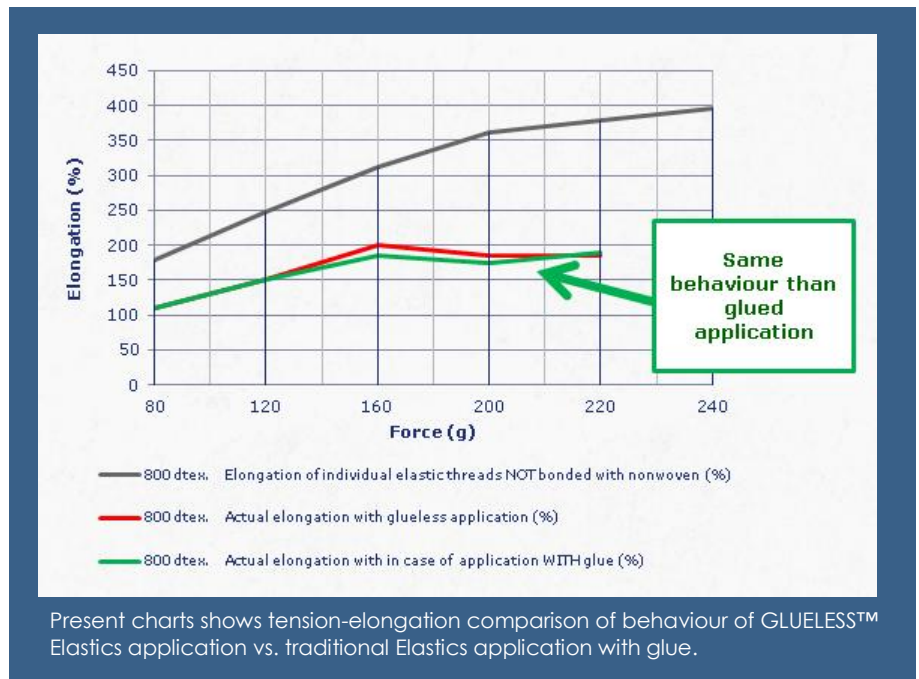


GLUELESS ADL samples displayed after the tests

GLUELESS™ Elastics application: Product performances initial test results

Samples of the final diaper element assembly with glueless Elastics have been subject to product performance tests relevant to tension-elongation behaviour.

Tests gave positive results as the comparative tests of product performance vs. traditional technologies shows that the GLUELESS™ solution offers equivalent results in terms of tension-elongation of the final diaper element assembly.



Present charts shows tension-elongation comparison of behaviour of GLUELESS™ Elastics application vs. traditional Elastics application with glue.

Kick-off of LCA activities at University of Manchester

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LCA is a commonly used tool to quantify environmental sustainability and will span the whole value chain. The LCA will be performed using state of the art software and modeling. In fact, UNIMAN has developed an award winning high-level software for Life Cycle Analysis, called CCaLC LCA tool (<http://www.ccalc.org.uk/software.php>).

CCaLC is a carbon footprinting tool that enables quick and easy estimations of the life cycle greenhouse gas emissions along the whole supply chains. The methodological approach follows the internationally accepted life cycle methodology as defined by ISO 14044 and PAS2050.

Fameccanica will support UNIMAN in the definition of parameters for environmental evaluation and LCA, and in the generation of data from tests and trials.