

In partnership with:



UNWIND**3D**
develop your idea

HEATED INSOLES
CASE STUDY - HEATING SOLUTIONS





PROBLEMS

Current production of heated insoles involves



High selling price



NOT-UNIFORM DISTRIBUTION OF HEAT
the heat is concentrated mostly in the front part of the insole

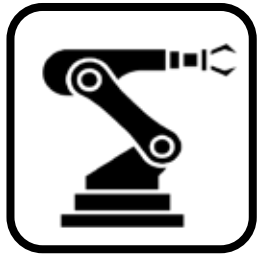


High material waste



SOLUTION

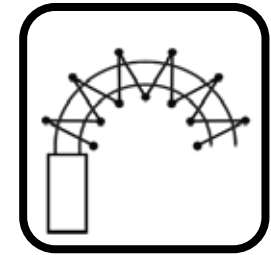
The use of Tailored Wire Placement (TWP) technology in order to:



AUTOMATE
PRODUCTION



IMPROVE HEATING
DISTRIBUTION REDUCING
MANUFACTURING COST



TAILOR AND
CUSTOMIZE THE
HEATING WIRE PATH



ADDITIONAL ADVANTAGE

Scalable and green technology



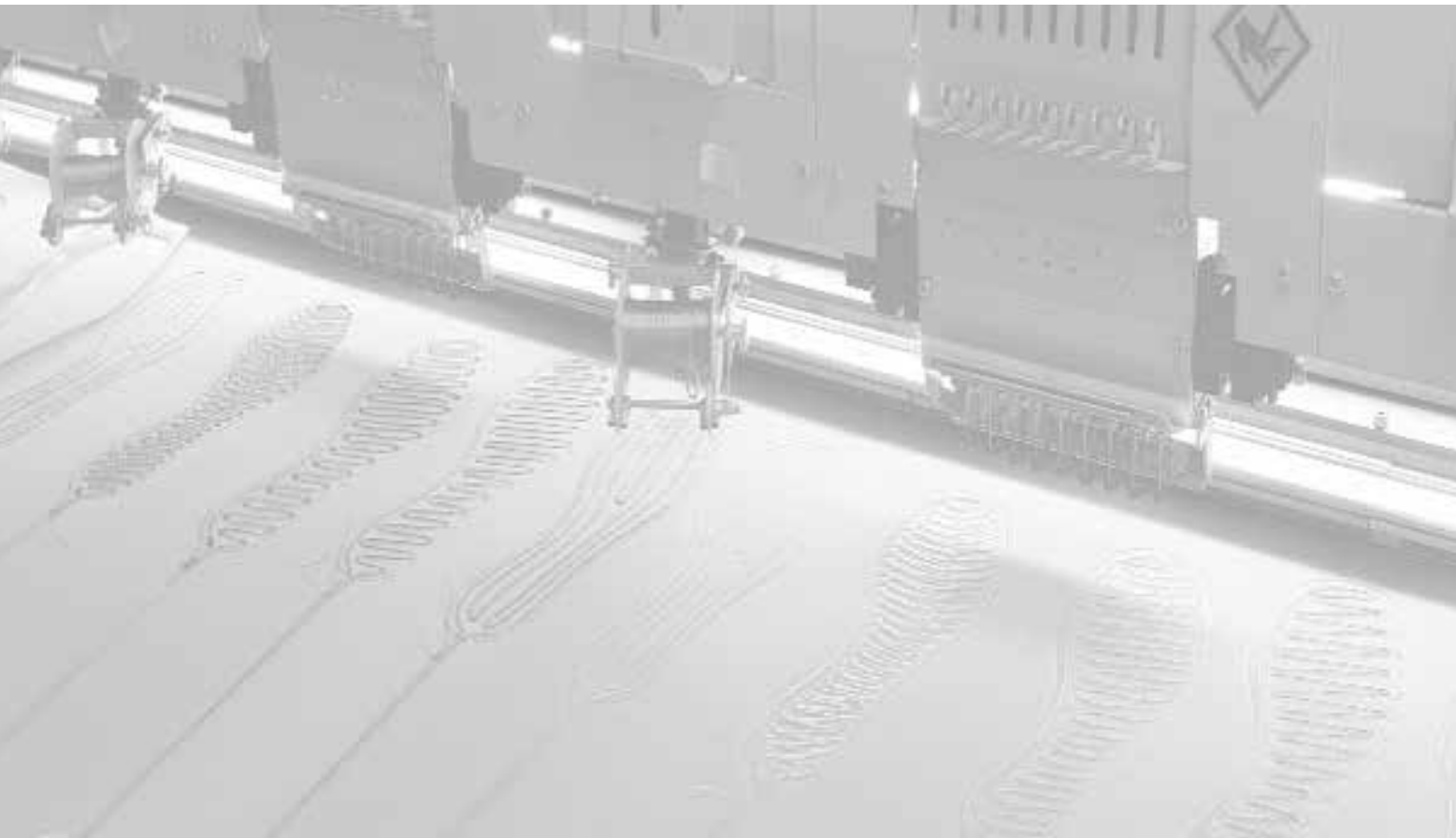
PRODUCT

Preformed and molded by automated processes



STEP 1

Material's selection and material's compatibility
➔ determine optimal operational parameters





STEP 2

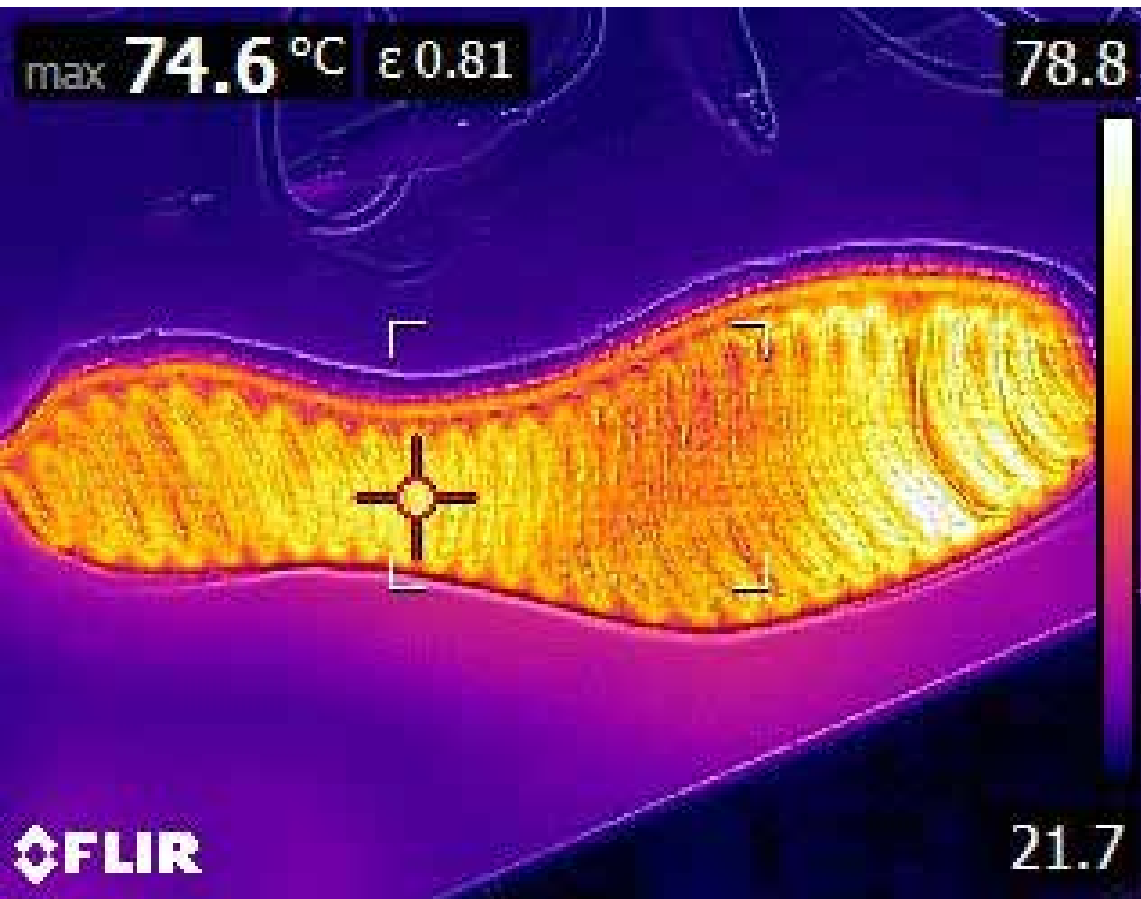
High volume production using ZSK Stickmaschinen GmbH technical embroidery machines - 24/7





STEP 3

Cable connection, assembly and individual testing before packaging





RESULTS

Thanks to Unwind3D and Embro's expertise the following have been demonstrated:

60%

ENERGY
SAVING

100%

FLEXIBILITY IN
TUNING HEATING
WIRE PATH

100%

SAVING IN MA-
NUFACTURING
COST



CONTACT US

To stay ahead of innovation



UNWIND**3D**

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