

# Preservatives in Leather Production

*October 2014 saw the start of a research project concerning the amounts of preservatives used in leather production which is funded by the German Federation of Industrial Research Associations (“Arbeitsgemeinschaft industrieller Forschungsvereinigungen” – AiF) via the German Leather Research Council (Forschungsgemeinschaft Leder e.V.). It bears the title “Studies on Sustainable Application of Antimycotic Agents in Leather Production and on the Migration of Residual Preservatives Leather”. The project is being conducted jointly by the Test and Research Institute Pirmasens e.V. and the Research Institute for Leather and Plastic Sheeting (Forschungsinstitut für Leder und Kunststoffbahnen – FILK) in Freiberg, Germany.*

Global splitting of the leather production chain makes preservation of wet intermediate products with biocidal agents absolutely essential. Yet in spite of standard fungicide treatment, semifinished products are repeatedly attacked by mould – owing to insufficient dosage.

Finished leather does not need to be preserved by fungicides. However, a portion of the fungicides added to the intermediate products of leather production remains in the leather during further production steps and is still to found in the end product.

To eliminate any possible health risk to consumers from leather products, the amount of fungicides added should remain below a level which would lead to the presence of hazardous amounts in the finished leather. In keeping with the adage “As much as necessary (mould protection), as little as possible (consumer protection)”, the principal goal of the research project is to determine the minimum concentration of various biocidals in the wet intermediates necessary to prevent mould infestation while also ensuring a minimum possible fungicide concentration in the finished leather.

To generate the necessary data, wet intermediate leather products are treated with various concentrations of fungicides and processed to yield finished leathers. Samples are taken from the wet intermediate products and examined for preservative concentration and mould resistance. The same tests were also performed on the leather produced. To test their storage life, the wet intermediate products and leathers are stored under various climatic conditions for three months and then re-examined. The data obtained provide an indication of what concentrations are required for adequate preservation and of the conditions under which leather and leather products can be stored and transported without danger of mould growth.

Other goals of the project are establishment of a method for assessing the exposure of consumers in the case of leather products coming into contact with the skin and extension of the analytical method according to DIN EN ISO 13365 to additional preservatives.

Project 18368 is funded by the German Federation of Industrial Research Associations (“Arbeitsgemeinschaft industrieller Forschungsvereinigungen”– AiF) and will be concluded on 30 September 2016. Progress and results will be reported in the PFI Newsletter.



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