



LIFE13 ENV/IT/000470

ecodefating

ENVIRONMENTALLY-FRIENDLY NATURAL PRODUCTS
INSTEAD OF CHEMICAL PRODUCTS IN THE
DEGREASING PHASE OF THE TANNING CYCLE

Duration

01.10.2014 to 30.09. 2016

Total budget

€ 1,035,556.00

EU contribution

€ 517,778.00

Coordinating beneficiary



Chemical Department
"Ugo Schiff"
Florence University (IT)

Associated beneficiaries



Chemical Institute of
organometallic compounds
of CNR (IT)



Asociación de Investigación
para la industria del
calzado (ES)

NEWPORT SRL

Newport (IT)

Project objectives

- Demonstration of use of innovative formulations free from toxic products deriving from leather tanning.
- Substitution of chlorinated with eco-sustainable natural products in the defatting process.
- Optimization and application of new tanning formulations specific to defatting phase, containing products derived from natural raw materials such as glucosides, biomasses, husk, vegetable oils, highly absorbed by leather.
- Study and application of intelligent and ecological products: leather treated with formulations allowing controlled release of natural biological active principles or perfumes.

Expected results

- 100% substitution of raw materials of petrochemical origin with others based on renewable sources.
- 100% elimination of chlorinated molecules from the defatting process.
- 100% elimination of the chlorinated functional group.
- 100% increase in the biodegradability profiles of the molecules used.
- 50% increase in the penetration of defatting products into derma.
- Defatting exhaustion, i.e. product consumption reduced by 30%.
- 20% reduction of pollutants in bath wastewaters.
- 20% reduction of water consumption during the tanning process.
- 20% reduction of polluting load in tannery waste water.
- 100% reduction of high chlorine toxicity in the tanning cycle.
- Reduction of tannage waste and 33% reduction of the waste management.
- 20% reduction of energy consumption.

Actions and means involved

The ECODEFATTING solution will be demonstrated at:

1. Laboratory level (UNIFI and ICCOMCNR)
2. Semi-industrial level (Newport and INESCOP)
3. Pre-industrial (at least two tanneries, in Spain and Italy)

Dissemination days and technical/financial demonstrations will be hosted by participating tanneries. The project also considers different training actions aimed at Spanish and Italian tanners.

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