

Leather degradation: Methodology and specific equipment for quantification

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Content

Growing consumer interest in more sustainable products, as well as government demands to create environmentally-friendly consumer goods, has led the leather industry to embrace the use of alternative tanning agents and processes that promote quicker and eco-friendlier degradation of leather after its useful life.

In order to develop products that allow more sustainable leathers to be obtained, the leather industry is demanding methodologies that allow them to assess the biodegradation progress without having to wait for long time to obtain the results of field trials, which would otherwise take years to complete.

In this sense, INESCOP has recently developed a technology for the quantification and assessment of leather biodegradation processes in a fast and efficient way. This technology, which is based on ISO 20136 standard, allows the accelerated assessment of such processes as it is possible to know, in a relatively short period of time (just 30 days), the biodegradation profile of materials that would take years to degrade in nature. The equipment developed by INESCOP for such purpose has been awarded the prize for Spain's Best Invention 2019 in the field of Biotechnology by the Spanish Inventors Association.

Comparative studies between samples tested in the laboratory using the equipment that integrates this technology and field tests, in accelerated degradation conditions, show the potential of this test to determine, from the direct comparison between the percentage of degradation of pure collagen and leather samples, which of these samples have greater or lesser degradation capacity, regardless of the environmental conditions present.

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Biodegradation equipment

Keyword

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