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# Green Tanning

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The tanning industry requires significant amounts of water and energy, and generates large quantities of toxic and harmful waste. For leather tanning, in Italy alone, approximately 47 million tons/year of chemical products are consumed. Currently, over 85% of the globally processed hides are tanned with chromium (III) salts.

However, exhausted baths and sludges containing chromium are highly toxic, and if not adequately treated, can cause serious health hazards for citizens. The main alternatives employed at the industrial level (synthetic or natural tannins, or aldehydes) impart inferior physical and mechanical characteristics to tanned leather compared to chromium. However, they do not solve the health problem for consumers and the environment, as these leathers can release formaldehyde (a carcinogen) and phenol (cytotoxic).

Therefore, finding a valid alternative to the methods currently used industrially for leather tanning remains an open and pressing issue.

## HOW CROSSING CAN HELP

Crossing has developed and patented an industrial protocol for the use of innovative cross-linking activators (ACL), compounds capable of cross-linking a variety of natural and/or synthetic materials, such as tanning agents.

ACLs make leather rot-resistant without leaving any trace within the leather, providing a revolutionary alternative to both chromium and synthetic and natural aldehyde tannins. ACLs are the world's first tanning agents that stabilize leather without leaving any trace!

They allow for the production of a finished product completely free of metals, formaldehyde, and phenol. The leather obtained at the end of the tanning process is of good/excellent quality for various uses, with results comparable to chromium.

From an environmental perspective, since ACLs are not retained within the leather, they allow for completely non-toxic tanned leather, while waste and wastewater enable simplified disposal procedures.

Contact us for more information on this and other services offered to businesses. ([info@crossing-srl.com](mailto:info@crossing-srl.com)).