"Every effort made to reduce the damage to man and environment caused by leather production deserves respect.

### For us, this is not enough!"

Dr. Heinz-Peter Germann | Stefan Banaszak | Thomas Lamparter wet-green GmbH, Reutlingen



Leather is nice and good.



We have got the solution! A vegetable tanning agent, completely free from harmful substances, for producing beautiful, healthy leather.

Any kind of leather. Proven for years. In any colour. Completely biodegradable. Rather very good.

<sup>\*</sup>Beauty also results from inner values.



## Olivenleder® means luxury

We believe that true luxury unfolds when superior craftsmanship meets responsibility. Our patented procedure has the potential to lead global leather production to a responsible future which is sustainable and healthy for man and the environment. This is exactly what we aim for.

The award of the Cradle to Cradle Certified<sup>TM</sup> "Gold" certificate shows that we are on the right track: The tanning agent – an extract from olive tree leaves – even reached the top standard "Platinum" in the category "Material Health". To date, this accolade has been granted to only around 25 products throughout the world!

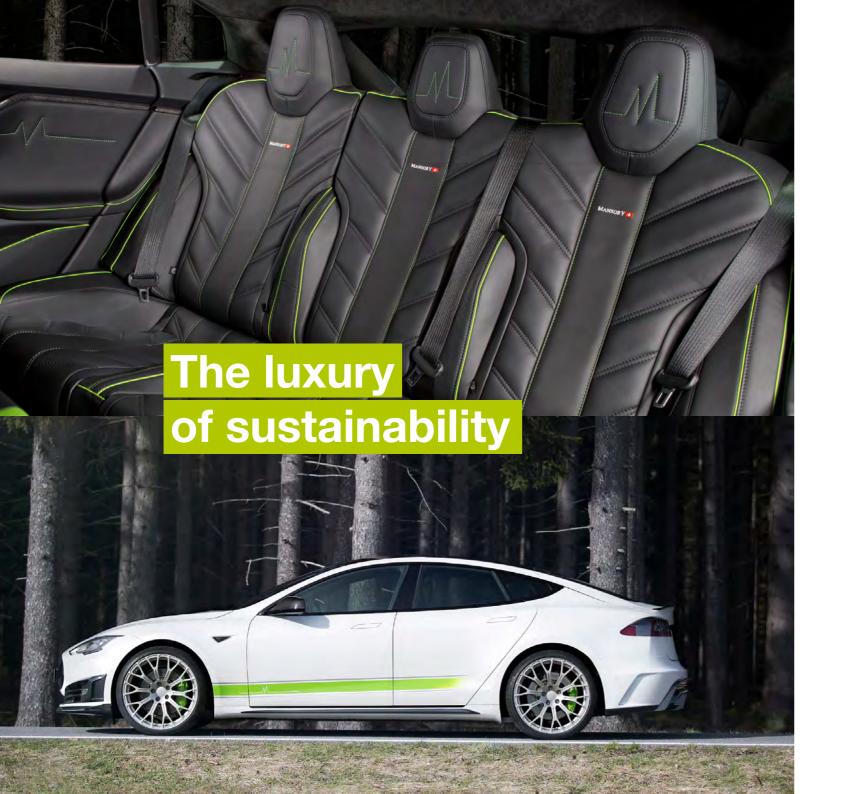


### Olivenleder® is beautiful

To avoid misunderstandings: We never aimed to make better leather. Leather from conventional production is nice and good. The unrivalled beauty of Olivenleder, however, results from the fact that it is not inferior to traditional leather despite being produced with the help of a tanning agent

- 1. which already exists as a by-product of Mediterranean olive harvest,
- 2. whose production reduces the emission of carbon dioxide as the leaves are no longer burned,
- 3. which poses no health hazard whatsoever,
- 4. which even was awarded the Dermatest seal "very good",
- 5. which could be sampled without any harm,
- 6. which can be produced in almost any amount,
- 7. whose production does not harm anyone,
- 8. which requires neither agricultural land nor food!

Thus the focus is not on any particular property of the finished leather but on the special feeling of treating oneself to environmentally conscious behaviour!



A certain inclination for luxury goods often results from taste and the ability to enjoy true quality. When superior craftsmanship meets global ethical responsibility, this leads to the creation of products which by all means can be described as "irresistible".

Such products are not at odds with the ideal of a better world with greater social justice. Quite on the contrary, they often promote this development. It is the luxury of a new quality, of a new way of thinking.

The aim is not "less harmful", but good for the environment, biodegradable, free from pollutants. That's Olivenleder<sup>®</sup>! That's Luxtainability<sup>®</sup>!

# The facts of sustainability

Sustainability. There are many who are tired of this expression. The word is seriously overused. But we are utterly convinced that the idea behind it still remains the key to a world worth living — today and even more so in the future.

Sustainability in the sense of a host of development targets has a wide variety of facets. Ecological, economic and social aspects demand solutions.

#### **Ecological sustainability**

The ingredients for a sustainable product should not only be harmless to the environment during production but ideally have a positive effect.

Our olive leaf extract is exclusively made from leaves of the olive tree. At present, these leaves are often burned!

#### **Economic sustainability**

When producing from renewable raw materials, the good intentions often have a reverse effect as damage is caused elsewhere. For example, agricultural land may no longer be available for growing food.

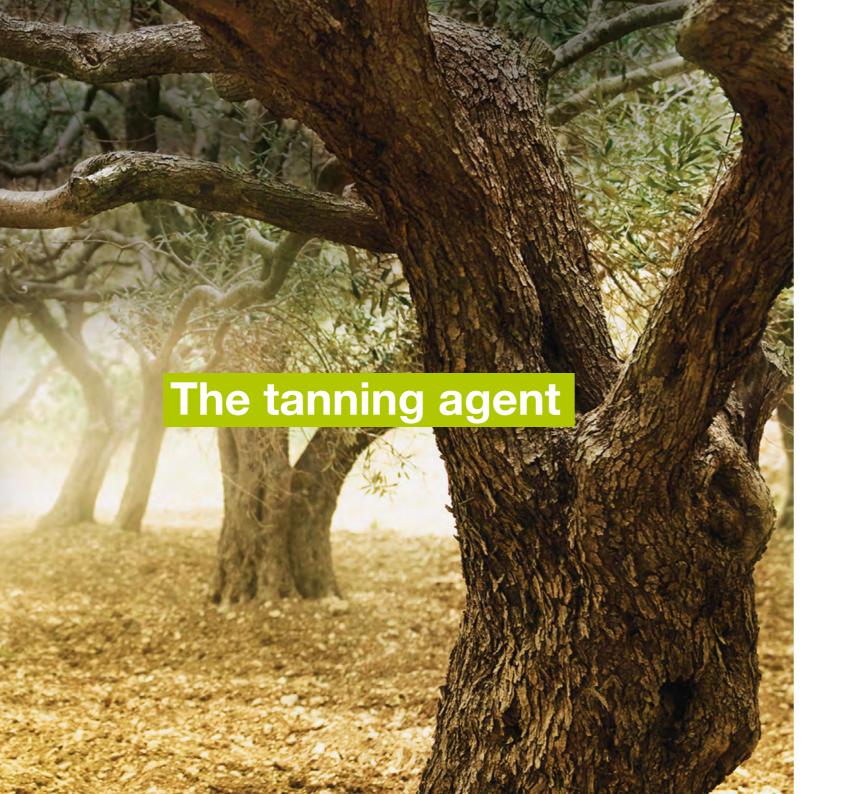
The olive tree leaves used for our tanning agent accrue anyway during pruning and harvesting!

#### Social sustainability

Whether it is appropriate that people have to labour under ignoble conditions when making a product is a question everyone needs to answer for themselves.

In some Mediterranean regions, the production of our tanning agent was able to greate new sources of income for farmers.

agent was able to create new sources of income for farmers. We make sure that they are paid fairly – for us, this is an aspect of social sustainability.



The tanning agent developed and patented by us is a **vegetable concentrate based on an aqueous olive leaf extract.** The same tanning active ingredients can be found in natural cosmetics as well as in extra vergine olive oil.

The tanning agent is **neither corrosive nor subject to the hazardous goods regulations which entails additional clear advantages for logistics.** Furthermore, the plant extract is free from metals and any chemically synthetic reactive tanning agents.

With regard to environmental and health aspects the product is completely harmless over the entire value added chain. Our tanning procedure is ideally suited to match the tanning agent! It not only ensures **maximum sustainability** and consideration of all ecological aspects but also allows **reduction of acids**, salts, syntans and dyestuffs as compared to traditional tanning methods.

In addition, waste from leather production such as leather shavings can be returned to the value added chain.

What is more, an entire step of the tanning process, the traditional "pickling", is no longer required. The wet-green® tanning of the pelts can start immediately after bating.

Conventional tanning agents often pose considerable potential risks to man and the environment.

Olive leaf extract (OBE) is good for the environment and free from any risks for man.

The olive leaf extract used for tanning Olivenleder<sup>®</sup> is a pleasantly fragrant, purely vegetable based syrup made from the leaves of Mediterranean olive trees.

Conventional tanning agents irritate the skin and may cause allergies.

Olive leaf extract has been rated "very good" by the Dermatest seal of approval.

Many a skin cream would be proud to achieve this.



Conventional tanning agents must be used with utmost care to protect both tannery workers and the environment.

Olive leaf extract meets
the top standard "Platinum" in the
category "Material Health".



As of 2017, this accolade was granted to only around 25 products throughout the world!

### Conventional tanning agents are and will remain pollutants.

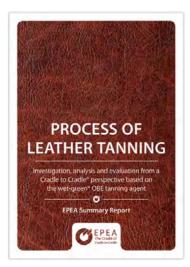
Olive leaf extract has even been awarded the Cradle to Cradle certificate in "Gold" for the sustainability of the material flow.



GOLD

The production of olive leaf extract helps to prevent many tons of carbon dioxide emissions as the leaves are no longer burned but collected. Thus additional value is created at the place of origin.

The currently available amount of leaves would enable the production of more than 700 million square metres of leather, that is around 40 percent of the global demand for leather.



## The EPEA study on the circularity of different

tanning methods awards

top grades to the wet-green® OBE tanning agent!











Social Fairnes

can have a detrimental effect on the health of workers as well. However, in comparison to chromium tanning, the application of glutaraldehyde tanning requires more modern production facilities, so that compliance with labor standards is assessed as more likely.

beyond the expected standard requirements. Regular audits are carried out at the olive plantations to investigate the working conditions; employee projects were launched to further implement the Cradle to Cradle® principles.

#### Results

Assessment	Chromlum tanning	Glutardlaldehyde tanning	Plant extract tanning	wet-green® tanning
Hazardous properties		0	+	+(+)*
Material health	-/0	+	++	++
Tanning process	0	0	0	++
Recyclability		0	+	+(+)*
Social aspects	187	0	+	++

The chromium tanning process is characterized by energy and water efficiency, but the use of chromium, whose use in emerging and developing countries frequently leads to environmental problems, as well as the possible formation of chromium(VI) compounds in the leather and during the combustion of leather, leads to the lowest rating among the considered tanning processes. A biological recyclability of chromium tanned leather products is therefore to be excluded.

In the case of the alternative glutaraldehyde tanning, the starting material also constitutes a risk, since it is toxic. A possibly safe application of glutaraldehyde in the production process and a reduced risk for workers in advanced production sites lead to a better evaluation compared to chromium tanning. Since no residues remain in the final product, a biological recyclability is possible, but the ingredients have not been optimized for this purpose. The wet-white tanning agents X-Tan® and Granofin® Easy F-90 have improved properties from an eco-toxicological point of view compared to glutaraldehyde tanning; however, these tanning agents are based on fossil raw materials and thus from a Cradle to Cradle® perspective, can only be considered as a transitional solution.

the tanning agent by sulfitation must be taken into account, which can partly contain problematic substances. The recyclability of vegetable tanned leather is fundamentally given, but not optimized for this purpose. From an ecological point of view the large quantity of required tanning agent is problematic, since the biological material of which it is partly produced has a critical cultivation.

The material health of the wet-green® olive leaf tanning is rated as very good. Through the use of olive leaves, whose cultivation as a "natural by-product" is not an additional burden for the environment, the wet-green® tanning agent scores through a sustainable production process. Compared to conventional vegetable tanning agents, the water consumption in the tanning process, as well as in comparison to other chromefree tanning processes the use of synthetic retanning agents, is significantly reduced and optimized from the ecological point of view by using the most recent standards.

From the Cradle to Cradle® perspective, the wetgreen® OBE tanning agent represents the best possible alternative among the evaluated tanning processes. (\*)



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cradle to cradle Products Innovator Award 2015











