



PELLVIT® GS-A and ERHAVIT® UH-A

Innovative beamhouse technology

» Increasing leather quality,
saving time and reducing effluent



TFL – Great chemicals. Excellent advice.

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Innovative beamhouse technology

Leather is made in the beamhouse, where the two critical processing factors are:

- **Opening up** in liming strongly influences leather tightness, softness, grain elasticity, the penetration of subsequently added chemicals and physical properties.
- **Degree of swelling** impacts the availability of active sites for the tannage and determines the fullness and compactness of the final crust.

Soaking

- Apart from removing dung, blood and salt, the key aim of soaking is full fibre rehydration.
- For full rehydration hyaluronic acid (HA), located between the fibrils must be removed.
- If not removed HA would block the penetration of water and process chemicals, resulting in looseness.

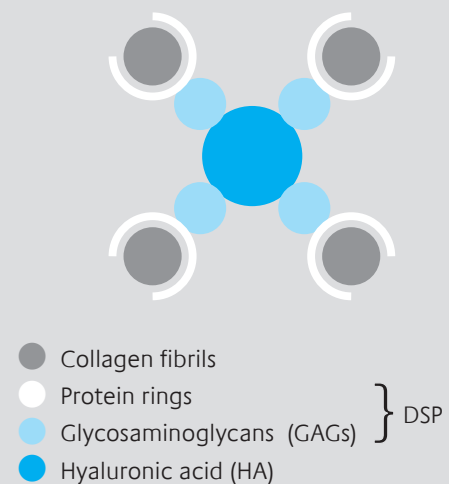
Traditional soaking

- A longer soaking ensures better rehydration but the greater the deterioration in the quality of the leather.
- A shorter soaking risks inadequate rehydration resulting in pronounced neck wrinkles, belly draw and looseness.
- Using proteolytic enzymes improves the rehydration but may attack the collagen with the risk of grain damage.


Innovative soaking with PELLVIT® GS-A

- Speeds up full rehydration by degrading dermatan sulphate proteoglycan (DSP) that locks HA in.
- Is NOT proteolytic, it cannot damage collagen and safeguards the quality of the hide structure.
- Starts the “opening up” process in soaking, reducing time, effluent load and maximizing leather quality.

Collagen fibrils are surrounded by DSP.
HA gel is located between the fibrils.



Removing Hyaluronic acid is a precondition for an optimum soaking result.

 **PELLVIT® GS-A** is a biocatalyst cleaving HA so that it is efficiently removed from the inter-fibrillary spaces allowing water and chemicals to penetrate the cross section of the raw material.

Unhairing

The key aim of the unhairing process is to remove the epidermis, the hair including the roots and the scud.

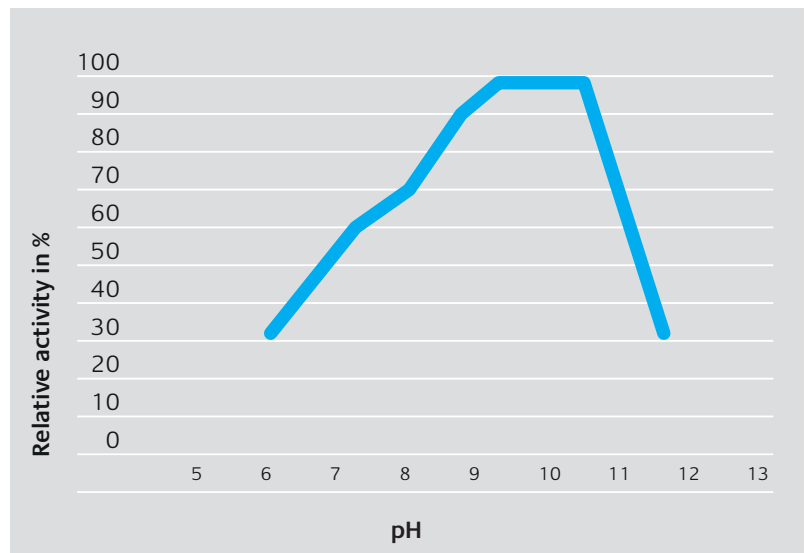
Traditional unhairing

The hair burn process results in a high COD effluent load caused by the liquified hair. The hair saving process improves the wastewater quality significantly, however, broken hair shafts or remnant hair roots can reduce leather quality.

Innovative unhairing with ERHAVIT® UH-A

- Degrades the pre-keratin of the basal membrane, loosens the hair root and prepares for the epidermis removal at a pH of 8.5 to 10.0.
- Eliminates the need for organic sulphur products. This avoids hair degradation resulting in improved hair filtration.
- Allows a reduction in the offer of sulfide and lime.
- Helps to control the swelling leading to excellent lay out with reduced wrinkles combined with clean, scud-free grain layer.
- Reduces substantially its activity at a pH level of >10 during hair immunization, unhairing and liming and thus the sensitive grain is protected.

Activity profile of ERHAVIT® UH-A during unhairing



ERHAVIT® UH-A supports unhairing and protects the integrity of grain, bellies and flanks.



The Benefits of the TFL system:

- Faster soaking, 24-hour beamhouse
- Cleaner pelts, excellent hair removal
- Reduced neck wrinkles and belly draw
- Reduced COD, Sulphur and sludge
- Increased cutting yield
- Tackle looseness



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