

PULCRA NATUR TANNING® – THE SMART WAY OF LEATHER TANNING

Pulcra Chemicals
The solution specialist

Why Pulcra Natur Tanning®?

The tanning of leather consists in the formation of cross-links between collagen fibrils. This makes it possible to convert leather from an easily putrescible organic material into a material which would resist primary bacterial attack and is thus fit to use for years or even decades. Although chromium tanning is a very safe and technically mature tanning method, **alternative, heavy metal free tanning methods** are increasingly more on the agenda of tanneries worldwide. However, many of the alternatives tanning methods have severe regulative disadvantages:

- Synthetic tanning agents contain or form different types of bisphenols, which are on the list of substances to be restricted in the mid-term. Syntans are also part of virtually all combination tanning methods, and re-tanning recipes
- Aldehyde containing or releasing products are mostly restricted. Recently, glutaraldehyde has been added as SVHC under REACH.

As a general observation, alternative tanning is often found to be less uniform and reproducible than traditional chrome tanning. Besides that, they often include the use of fossil-based materials, what is an important burden on the CO₂ footprint of the final leather article.

All these points Pulcra researchers were having in mind when investigating possibilities of natural tanning. It turned out very rapidly, that it is the combination of various tailor-made components, and the art of their application, what can make them successful.

What is Pulcra Natur Tanning®?

In the heart of the new tanning protocol is a **combination of the zeolite agent Coratyl® G with the bio-based complexing and penetrating agent Coratyl® SI**. This innovative application creates a flex-lock tanning giving flexibility, volume and stability to the collagen matrix. The complexing agent, which is obtained by natural fermentation, reacts with both the polymer, as well as with the collagen itself. In the end, it is the sequence of the use of selected bio-based and inorganic components, which make that the tanning is stable and uniform. Shrinkage temperatures of far above 70°C are securely achieved and maintained during the entire life span of the leathers. The formulation is totally free of aldehydes, heavy metals or components of fossil origin. For improved results, a combination with low bisphenol syntans is possible.

What articles can be made with Pulcra Natur Tanning®?

The new natural tanning method is suitable for many leather types of different degree of softness, including car upholstery, conventional upholstery, shoe-upper, garment or glove leathers. Soft and full leathers of exceptional whiteness and very good heat and light fastness are obtained.



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