Application Overview

For **Haptex®** PU solutions and **Elastollan®** TPU

Furniture

- Low VOC
- Good stitching
- High peel strength
- Flame retardant

Garment & Accessories

- Low VOC
- Softness
- High peel strength

Automotive

- Low VOC
- Good UV resistance
- High peel strength
- Low abrasion
- Heat and curve resistance

Footwear

- Low VOC
- Low abrasion
- Good flexing
- High peel strength

Meet stringent VOC requirements with environmentally friendly synthetic leather solutions from BASF

BASF
We create chemistry

Breathe New Life into Synthetic Leather

with Haptex® and Elastollan®

Your environmentally friendly synthetic leather solutions

BASF
We create chemistry

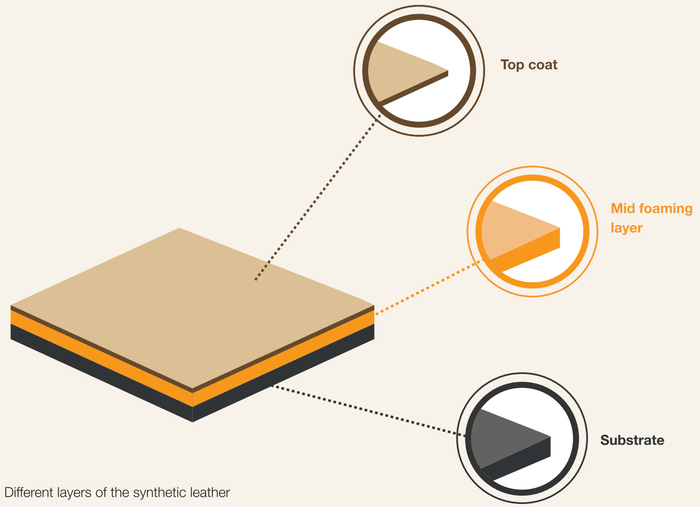
The next generation of synthetic leather

Synthetic leather made of polyurethane is used in the furniture and automotive industry, as well as for footwear, accessories and apparel. It is known for its softness, durability, lightweight and easy maintenance.

The physical properties of the end product are determined by the different layers of the synthetic leather, with the mid foaming layer having strong influence on the comfort and tactility. Therefore, it is crucial to meet specifications like tear resistance, tear propagation strength, abrasion, scratch resistance, and good hand-feel.

At the same time, it is becoming more and more important to offer environmentally friendly products to comply with volatile organic compound (VOC) requirements.

BASF is committed to continuously improve processes and products to provide solutions that help meet current and future market and product requirements. This is why we have come up with two solutions for synthetic leather, one based on **thermoplastic polyurethane (TPU)** and one on **polyurethane (PU)** to cover a broad range of applications:



Different layers of the synthetic leather

Haptex®

The first PU solution for synthetic leather with zero organic solvent

Haptex® is a polyurethane system for synthetic leather which does not use any organic solvent and therefore shows a unique combination of performances.

1 Environmentally friendly

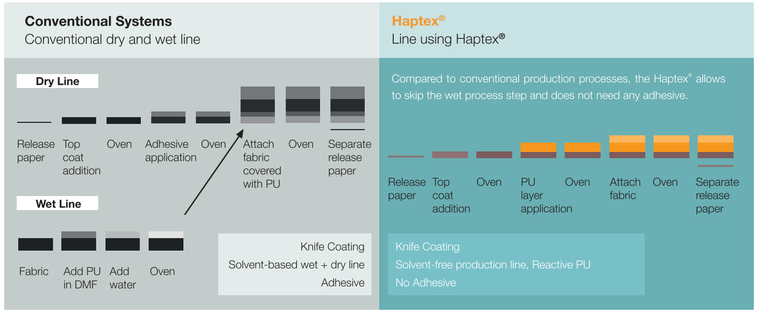
Meets stringent VOC norms

2 Simplified processes

Simplifies the production process by saving one production step and avoiding the use of solvents

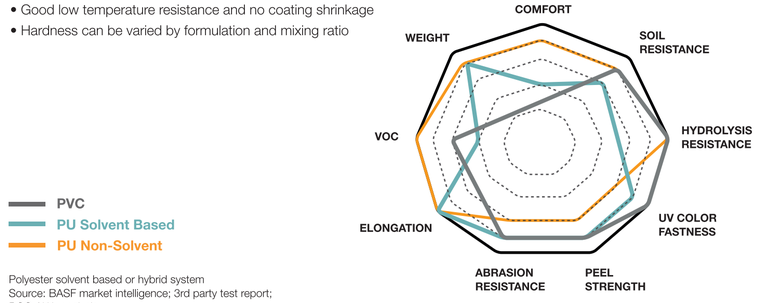
3 Superior properties

Creates products that have superior physical properties and hand feel



Haptex® differs from conventional systems by showing:

- Excellent hydrolysis resistance compared to other PU systems
- Good low temperature resistance and no coating shrinkage
- Hardness can be varied by formulation and mixing ratio

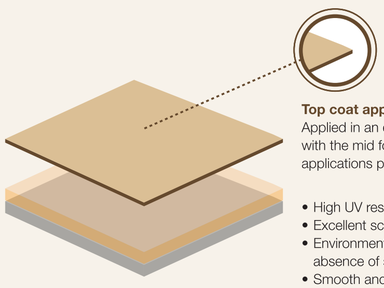


Polyester solvent based or hybrid system
Source: BASF market intelligence; 3rd party test report; BCG / IAL analysis

Elastollan®

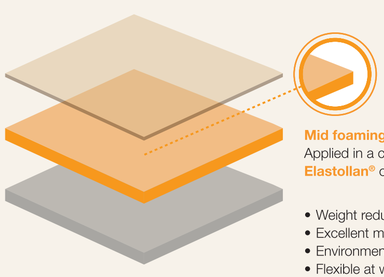
TPU solutions for top coat and mid foaming layer

Elastollan® TPU can be used for both the top coat and the mid foaming layer of synthetic leather.



Top coat application:
Applied in an extrusion process along or a co-extrusion together with the mid foaming layer, **Elastollan®** for topcoat applications provides

- High UV resistance without yellowing
- Excellent scratch and wear resistance
- Environmentally friendly low VOC solution due to absence of solvent and plasticizer
- Smooth and stick-free touch due to low softness with high crystallinity
- Stable softness at wide temperature range



Mid foaming layer application:
Applied in a co-extrusion process together with the top coat, **Elastollan®** offers

- Weight reduction with density: 0.5~0.9 g/cm³
- Excellent mechanical properties
- Environmentally friendly low VOC solution
- Flexible at wide temperature range (-30 to 100°C)