



PU Solutions
Elastogran

Magic Oil for Fantastic Dreams on Foam Mattresses

Lupranol®

BALANCE



 **BASF**

The Chemical Company

How does the Oil from the Castor-oil plant get into the Foam Mattresses?

Castor-oil, also known as verenda-oil, is extracted from the seeds of the castor-oil plant. It is a viscous, colourless, odourless and tasteless oil.

Lupranol®
BALANCE



Lupranol BALANCE – a symbiosis of chemistry and renewable resources

Through the application of a completely novel type of catalyst it has been possible for the first time to employ castor-oil in the production of low-emission flexible foam polyols, a new product which has been jointly developed by BASF researchers.

Lupranol BALANCE – for the sleep you dream of

The result of the researchers' findings is a completely new form of polyol, Lupranol BALANCE, which boasts numerous advantages for both manufacturers and consumers. A mattress made of Lupranol BALANCE weighing 10 kg contains on average 2.2 kg of castor-oil. This reduces the use of fossil fuels – and increases the quality of your dreams.



What is Castor-oil?

Ricinus Communis is a plant found in tropical and sub-tropical areas. In Europe it is an ornamental plant which can be found in gardens and parks. The seeds contain a high percentage of low-viscosity ricinoleic acid. For thousands of years castor-oil has been used for healing purposes. The contents of the seeds are employed as technical oils, solvents, finishes, hydraulic fluids and in cosmetics.

From Castor-oil to Polyol

Castor-oil can also be used as a starter for the production of polyols. The triglyceride of the ricinoleic acid possesses the same functionality – three hydroxyl groups per molecule – as the base products which are conventionally used for the production of flexible foams. A chemical advantage which has benefits for manufacturer and consumer alike.

The latest attempts to employ natural raw materials such as rape, sunflower or olive oil for the manufacture of polyetherols have regularly failed mainly because of their odour and emission levels.

With a share of 31 per cent of the total weight in the polyol, BASF researchers have succeeded in the amazing task of linking chemical production with renewable resources.

What is more, for decades polyurethane foams have been used as a padding material for sofas, armchairs, office chairs and car seats. It is very likely that you, too, sit on polyurethane most of the time!

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