

# The raw materials

Polyurethan, Polyurea and Hybrid

**It's all about the coating.**

**The right coating for your requirement.**



Ölresistent



Treibstoffresistent



wasserdicht



extrem dehnbar



leicht zu reinigen



rutschhemmend



bricht nicht



LKW Anrittschboden



UV-beständig



Säureresistent



Lebensmittel transport



Lösungsmittel frei



Geräuschdämmend



Naht-/Fugenlos



wetterbeständig



Abriebfest

## The raw materials we work with

A coating applied with spray-process offers numerous advantages in many different application possibilities. In the beginning there is always the question of the right material for a result of highest quality. KCN relies on three basic materials: polyurethane, polyurea and so-called hybrids.

The two-component system is applied with a special high-pressure system. The mixture shoots with approximately 200 bar from the mixing chamber and is solid and durable within a few seconds. The ideal mix of the two components and acquiring the best results require a lot of craftsmanship and experience of our application engineers.

### Polyurethane

Polyurethane is an indispensable part of our daily lives. We find it, among others, in refrigerators, shoes, cars and our homes.

Polyurethane is a plastic material, for whose preparation the addition of a catalyst - also called additive - is necessary. Depending on the production process and selection of the catalyst, the plastic has different characteristics. It can be soft and elastic, but also hard and brittle. In conjunction with moisture, a reaction takes place that causes polyurethane to foam. In this form we know the material, for example as foam rubber or construction foam. For a spray coating using our method, however, this reaction is unwanted. That's why we use a catalyst that reacts so quickly that no action can take place with atmospheric humidity.

### Polyurea

Polyurea is a highly reactive polyurea prepolymer, which does not react with moisture in contrast to polyurethane. In addition, no catalyst is necessary in

order to activate the reaction. This results in numerous positive characteristics. Polyurea is completely waterproof, highly connective and elastic. It has an elasticity of up to 700%, while it is extremely tear-resistant and remains sealed even under distortion.

Our coating with polyurea is superior due to the high elasticity, excellent adhesion properties and the fast processing time compared to conventional coatings.

### Hybrid

Copolymerizing is the process, by which it is possible to combine polyurea and polyurethane. This creates a material that combines characteristics of both components.

As a result, there are numerous application possibilities for coatings from KCN.



Industrie



Bau



Handwerker



Marine



Fahrzeugbauer



Jäger



Figurenbauer



# Super strong – a second skin



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 710968.