### King Global Incorporate

### Furniture Foam: which foam is suitable?

A question which is often asked by our customers and one that is not easily answered. Subjective feelings of comfort mixed with objective measurements are used to determine which foam grade is suitable for the type of furniture. Besides comfort, other factors such as durability and economics are taken into consideration to decide which type of foam is suitable.

An important factor is the so-called support factor, which can be calculated based on the ratio between 65% IFD and 25% IFD. Allthough it may seem as a complex factor, it is actually quite easy to do since we already test all our foam grades based on this. In general you can say the higher the support factor the more comfort the furniture will provide.

However foam is just one of the elements that determine the comfort feeling of furniture. It is therefore important that we can closely cooperate with our customers to make sure we have the perfect fit.





## **Developed specially for furniture**

Based on our experience with polyurethane foam, we have developed a special category of foam grades to suit the needs of the furniture industry. The main factors to make the foam more suitable are density, hardness and rebound or resilience. Combined with, for example, our memory foam it will give that exta feel of comfort.

Our laboratory tests all relevant parameters which are related to comfort and durability. Experience values have learned us, what value to achieve to get the best furniture foam. For example a tensile strength between 50 and 70 kPa will provide a longer durability.

In below table you will find the specification of our furniture foam. In case you have specific needs we can also develop a foam grade based on your specifications.

#### **FURNITURE FOAM GRADES**

| · · · · · · · · · · · · · · · · · · · |          |          |          |              |         |
|---------------------------------------|----------|----------|----------|--------------|---------|
| Color                                 | Density  | Hardness | Tensile  | Elongation   | Rebound |
|                                       | (kg/cbm) | (Newton) | strength | (% at break) | rate    |
|                                       |          | 40% IFD  | (kPa)    |              | (%)     |
| Rose                                  | 20 ± 2   | 240-270  | 40-80    | 80-100       | 35-45   |
| Cloud                                 | 25 ± 2   | 240-270  | 40-80    | 80-100       | 35-45   |
| Sunflower                             | 30 ± 2   | 240-270  | 40-80    | 80-100       | 35-45   |
| Leaf                                  | 35 ± 2   | 240-270  | 40-80    | 80-100       | 35-45   |

#### COLOR

Even though the color of the foam is not visible in the end product, it is useful to differentiate by foam grade so your production team can easily apply the right foam, at the right place in the right product.

# APPLICATION ENGINEERING

We understand
manufacturing and the
high demands on the
materials you use. We
work together with our
customers to develop
innovative foam grades
to meet their
expectations as well as
the expectation of their
customers.

# CERTIFICATE OF ANALYSIS

Each foam we produce is tested in our modern laboratory against ASTM D3574 and provided with a certificate of analysis.