

Topcoat Comparison

KLUMPP
COATINGS

We add value to your surface

Comparison of the three most common topcoat systems

1. Conventional UV-Topcoats

These "traditional topcoats", do not contain aluminium oxide or other anti-abrasive minerals. These topcoats offer excellent sandability and ease of repair. They provide for abrasion values of about 40 - 50 mg weight loss (ASTM Standard CS 17 Stone, 1.000 gram weight per wheel) and average scratch resistance properties (see illustration #1).

Advantages: Excellent sandability and ease of repair

Disadvantages: Average abrasion and scratch-resistance

Scope of application: Normal household wear and tear conditions. Not recommended for commercial use

2. Ceramic UV-Topcoats

These "Anti-Abrasive UV-Topcoats" products contain aluminium oxide or other anti-abrasive minerals. They provide for abrasion values of about 25 - 45 mg weight loss (ASTM Standard CS 17 Stone, 1.000 gram weight per wheel). Ceramic topcoats do offer greatly improved scratch resistance. However, due to the use of anti-abrasive minerals, sanding and repair is more difficult than with conventional topcoats. In addition, ceramic topcoats show grey marks when treated with steel wool (see illustration #2). Objects in contact with the surface, (chair legs, shoes, etc.) will be abraded due to the anti-abrasive surface increasing contamination.

Advantages: High abrasion and scratch-resistance

Disadvantages: Reduced sanding properties, more difficult to repair, challenging to keep clean

Scope of application: Recommended for household and commercial use or high traffic areas

3. Klumpp Coatings' Anti-Scratch UV-Topcoats featuring Nano-Technology:

These state of the art products are completely free of aluminium oxide. Due to the advanced properties of the applied Nano-Technology, it offers abrasion values of 25 - 30 mg (ASTM Standard CS 17 Stone, 1.000 gram weight per wheel). Klumpp Coatings' Anti-Scratch Topcoat provides extremely high scratch resistance – as compared to ceramic systems! Surfaces protected with Klumpp Coatings' Anti-Scratch Topcoat offer good sandability and ease of repair. In addition the nano-sized particles provide for a smoother appearance. They also provide for increased water repellency and represent an easier to clean and maintain surface (see illustration #3).

Advantages: Highest abrasion- and scratch-resistance, good sandability and ease of repair. Easy-to-clean and maintain

Disadvantages: None (as compared to ceramic and conventional)

Scope of application: Recommended for household and commercial use or high traffic areas

Topcoat Comparison

KLUMPP

COATINGS

We add value to your surface

The following illustrations describe the impact of the steel wool test on the three different topcoat systems:

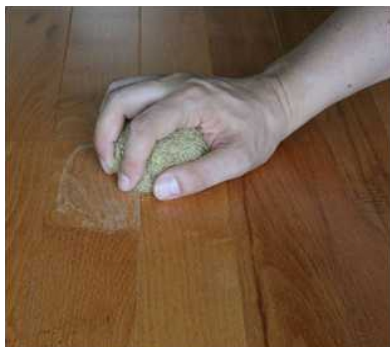


Illustration #1

abraded white coating
powder leading to scratches



Illustration #2

grey marks due to abraded
steel wool,
no scratches



Illustration #3

no abrasion,
no scratches,
no marks

We add value to your surface

- ✓ sweat and saliva resistance according to DIN 53160-1/2
- ✓ non-carcinogenic
- ✓ REACH* approved raw materials
- ✓ **eco INSTITUT** approved coating systems
 - ✓ no VOC emissions (Volatile Organic Compounds)
 - ✓ no Formaldehyde
 - ✓ no heavy metals
 - ✓ no Insecticides, Pesticides and Herbicides
 - ✓ no Plasticizers (Phthalates) EN 71-3



*REACH (Registration, Evaluation, Authorization and restriction of Chemical substances)