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Report on the abrasion behaviour of various organic surfaces

Summary
We had 5 samples each with 12 different organic surfaces at our disposal. It should be with a Taber Abraser the abrasion behaviour compared to a painted surface can be detected. The abrasion behaviour of 9 samples is comparable to that of a painted surface. Three samples show worse behaviour.

Equipment used:
Taber Abraser, equipped with:
a 180 grit sandpaper
a support weight of 1000 grams

The study was based on the following standards:
ENV 13669
EN 13329

Lacquered surface:
Henelit, Henepur Proficolor white, two-component paint with hardener,
double coat of paint with brush on oak

Carrying out the tests:
Both the cohesion of the surface and the adhesion behavior on the
Carrier material to be tested

Part 1
All samples sent and the comparative sample (lacquered oak board) were sent to as many
Subjected to grinding until the oak wood is clearly visible on the comparative sample.
This was the case after 100 councils.
The procedure of this test was documented photographically.
The following photos will be made available to you:
before the exam, after 10, 20, 30, 40, 50, 60, 80 and 100 rotations

Part 2
In order to verify the repeatability of the results, the experience of the
In the previous experiment, it was decided that 3 samples of each surface had 40 rotations.
be subjugated.
The 40 rotations were therefore fixed, since this number was the first time that the reference sample was used.
Oak wood becomes visible.

Results:
9 out of 12 surfaces show a comparable abrasion behaviour as the painted sample.
In Part 1, the Bamboart surface shows insufficient adhesion to the carrier material.
In the case of part 2 - repeatability - this problem could not be observed.
The surfaces wool and hemp show insufficient cohesion, the adhesion to the
Carrier material seems to be good.
The repeatability of this observation is given.

Interpretation:
Contrary to the expectations of a person who has the first contact with such surfaces,
the abrasion behaviour is quite astonishing and comparable to that of a painted surface.
There seems to be room for improvement only with 3 surfaces.
Since there are no standardized investigations for such surfaces, the results are only relative to comparable materials.

The photos provided and the samples that have been rubbed should give them a
Allow self-interpretation.
Samples will be returned for review..

Best regards, M. Rettenbacher