



PUROTEC

Natural matt UV lacquer with excimer matting technology
Highest surface quality | extremely scratch resistant



SCHEUCHER®

PUROTEC is special, free of solvents and tested for a healthy living environment!

PUROTEC is a naturally matt UV lacquer surface with a gloss level below 5 without the use of masses of matting agents. Thanks to a new and unique process technology in the parquet market, PUROTEC creates a particularly natural look and velvety feel that stands out from all ultra matt lacquered surfaces on the market with its special functionalities. Above all, the practical use of the PUROTEC surface is characterized by its excellent chemical resistance and exceptionally good microscratch resistance. It is practically maintenance-free and gives you only minimal changes in color caused by sunlight. In addition, PUROTEC is resistant to the disinfectants and cleaning agents used in hospitals. Due to its ideal frictional properties, it is also suitable for the use as a sports floor ex works and, in the brushed Valletta version, it meets slip class R10. PUROTEC has a greatly minimized tendency towards visible polishing and is particularly easy to clean because the surface is practically non-porous. Also visible footprints when walking barefoot are a thing of the past thanks to the special „anti-footprint effect“ of PUROTEC!

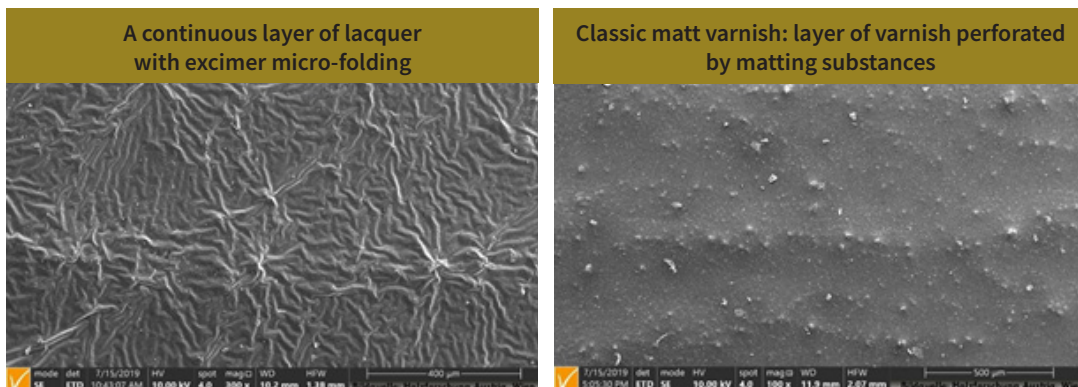


Photo credit: Holzforschung Austria Vienna

All of this is possible using a technology that is unique in the parquet industry: the inert excimer matting.

Excimer lamps emit light in the short-wave UV range at a wavelength of 172 nm, below the UV-C range. This light, which is invisible to our eyes, has a particularly high-energy emission. But since it has such short waves, the penetration capacity is very low and it can only penetrate a few μm deep into the liquid paint. The paint film, specially developed with our supplier Bona, only hardens completely on the surface and a skin forms like ice on a lake. This wafer-thin film shrinks very strongly when it hardens, which leads to micro-folds. Since the UV lacquer underneath is still liquid, it is cured to the full layer thickness together with the shrunk and micro-folded lacquer skin by subsequent classic UV lamps.

This micro-folding scatters the impinging light in all directions (diffuse reflection), which our eyes perceive as a deep matt look. To stick with the example with the lake, the main difference to matting with matting substances should also be explained briefly and boldly: While a continuous film is present with a micro-folded excimer matting, the light scattering at classic matting is achieved by matting agents, which are like footballs shot in a lake that float on top and are fixed by the freezing of the lake - just like it happens when drying with UV lamps. If many ice skaters drive around on this lake now, they slit open the protruding parts of the footballs, then they are torn out by sliding with the runners or rolled smooth by the ice resurfacer. All of this also happens on your parquet floor with various mechanical exposures such as moving chairs, micro-scratches from street shoes or cleaning with cleaning machines. All footballs that are no longer there reduce the refraction of light, which corresponds to the poor behavior of matt lacquers against polishing. The missing footballs in the lake are weak points in the ice, which explains the reduced chemical resistance of matt lacquers, for example.

Our excimer matt lacquers do not have any of these disadvantages!

This has been proven by accredited test institutes, so the requirements for the highest level C of suitability for objects, scratch resistance, suitability for castors, various friction and sliding resistance tests, suitability for sports floors and of course chemical resistance and fire behavior are met in the best possible way.

Table of tested characteristics of PUROTEC:

PUROTEC	Natural matt UV matt varnish surface with excimer matting technology
Gloss level	4 ±1 °GU unter 60 ° Einstrahlwinkel
Object suitability	Highest object suitability level C according to Önorm C2354
Surface hardness	3,3 N according to Erichsen Scratch Test ÖNorm EN 438-2
Chemical resistance	1B according to ÖNorm EN 12720
Resistance to hospital chemicals	PUROTEC is resistant to antibacterial and antiviral surface and wipe disinfectants in hospitals, tested by Holzforschung Austria Vienna
Emissions	Scheucher parquet treated with PUROTEC falls below the legal requirements of all common systems by far - even the current strictest emission requirements of the LEED system. Tested according to EN 16516 and EN 16000-ff
Polishing / micro-scratch resistance	MSR-A1 and MSR-B1 according to EN 16094
Resistance against wheels of castor chairs	Suitable according to EN 425
Abrasion	> 2000 rotations according to the falling sand grit method according to EN 13696
Slip class	R9, at VALLETTA R10
Sliding friction	$\mu > 0.4$ (according to EN 14904 dry, without initial care), suitable for sports floors ex works
Sliding resistance	USRV > 105 (according to CEN TS 15676 dry, without initial care)
Fire protection class	Cfl-s1 for glue-down installations, otherwise Dfl-s1

Klaus Bauer, 30.11.2021
Head of development Scheucher Holzindustrie GmbH