

TECHNICAL BULLETIN 1/2024

RESISTANCE TO STAINING

according to EN 438-2: 26

The European Norm for High-Pressure decorative Laminates (HPL) EN 438 lays down a specific methodology to test the resistance of a laminate to staining agents likely to be encountered in everyday use. The staining agents are divided into three groups: Group 1, Group 2 and Group 3.

During this test, each staining agent is applied to the surface of the laminate for a specific time. See below table for staining agents and contact times. After the set time, the staining agent is removed and the surface is cleaned with an everyday cleaning agent as specified in the procedure.

FENIX surfaces have been tested by a third party institute and could be completely cleaned after the specified contact times with the staining agents mentioned in the table.

In case a stain remains visible, we suggest to follow the cleaning guidelines as per fenixforinteriors.info for deep cleaning.

STAINING AGENTS		
GROUP 1	GROUP 2	GROUP 3
Contact time 16 h	Contact time 16 h	Contact time 10 min
Acetone	Coffee (120g of coffee per litre of water)	Sodium hydroxide (25% solution)
Other organic solvents	Black tea (9g of tea per litre of water)	Hydrogen peroxide (30% solution)
Toothpaste	Milk (all types)	Concentrated vinegar (30% acetic acid)
Hand cream	Wine vinegar	Bleaching agents and sanitary cleaners containing them
Urine	Alkaline-based cleaning agents (to 10% concentration with water)	
Alcoholic beverages		Hydrochloric acid based cleaning agents (≤ 3 % HCI)
Natural fruit and vegetable juices	Hydrogen peroxide (3% solution)	
Lemonade and fruit drinks	Ammonia (10% solution of commercial	Acid-based metal cleaners
Meats and sausages	concentrate)	Mercurochrome — (2,7-dibromo-4-hydroxymercurifluoresein, disodium salt)
Animal and vegetable fats and oils	Nail varnish	
Water	Nail varnish remover	Carbon black suspension in paraffin oil (Shoe polish simulant)
Yeast suspension in water	Lipstick	
Salt (NaCl) solutions	Water colour	Hair colouring and bleaching
Mustard	Laundry marking inks	lodine
Lyes, soap solutions	Ball point inks	Boric acid
Cleaning solution consisting of:		Lacquers and adhesives
- 23% dodecylbenzene sulfonate	(except fast curing materials)	
- 10% alkyl aryl polyglycol ether		Amidosulfonic acid descaling agents (<10% solution)
- 67% water		
Commercial disinfectants		
Stain or paint removers based on organic solvents		
Citric acid (10 % solution)		

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