

VARICOR[®]
solid creativity

MATERIAL BENEFITS,
ENVIRONMENT,
CERTIFICATION

**Tested, certified,
hygienic and safe**

VARICOR[®] - SOLID CREATIVITY



The all-purpose solid-surface material

VARICOR® stands for functionally and aesthetically superior custom-fit solutions for a wide range of applications, such as nurseries, hospitals/laboratories, washrooms, etc. The material properties of this solid-surface material are impressive in many respects: VARICOR® is non-porous, impact resistant, largely heat resistant, flame retardant and resistant to the disinfectants used for sanitising surfaces and hands, and to standard chemicals. Because of its high material density and homogeneity the material is also extremely wear resistant. But that's not all: this fully through-coloured mineral material is available in practically any colour you could wish, and can be moulded into almost any shape and fabricated seamlessly – either as a standard product or as a custom piece. Even small product batches can be manufactured cost effectively – not least because of our more than 30 years' experience and a fully certified quality management system.

VARICOR® consists of the natural filler aluminium hydroxide, high-quality copolymers and mineral colour pigments. This non-porous, extremely wear-resistant and exceptionally versatile material is not only food safe, heat resistant, impact resistant and maintenance friendly, it also meets the critical requirements for the applications and shapes of tomorrow:

- 1. VARICOR® moulded parts are CE certified** and fulfil the conditions required by the EU directives for the respective product groups.
- 2. VARICOR® is hygienic and resistant to** with all the standard chemicals and disinfectants for hands and surfaces.
- 3. VARICOR® is biocompatible and partially recyclable.**
It contains no heavy metals or other toxic substances and is produced and packaged in a resource-saving manner.
- 4. VARICOR® is sustainable.** It can be reworked and even fully repaired without great effort or expense.



04 **CE mark**
VARICOR® moulded parts qualify for CE marking in compliance with DIN EN 14688, EN 14296, EN 14516 and DIN EN 13310.

06 **Hygienic properties**
VARICOR® is suitable for application areas with the most rigorous hygiene requirements.

08 **Resistance to disinfectants**
VARICOR® has been tested and certified for compatibility according to DIN EN 12 720.

10 **Resistance to chemicals**
Almost all chemical substances used in factories, laboratories and washrooms leave no traces on VARICOR®, or traces that can be removed quickly and without residue.

16 **Technical features**
VARICOR®'s high material density and homogeneity give it exceptional material properties and make it universally applicable.

18 **Environment**
Not only is VARICOR® biocompatible and partially recyclable, the entire production process, from the selection of material suppliers to packaging, is based on environmentally friendly principles.



CE mark

The CE (Conformité Européenne) mark, which is mandatory for sanitary ceramics, guarantees that the product meets all the requirements of the European directives for this product group and can be installed and/or used without restrictions. This gives tendering bodies and users the assurance that only products are used that comply with the statutory regulations and that, when installed correctly and used as intended, reliably and safely fulfil their intended purpose.

Mandatory CE marking

Products that, due to their nature and condition, are covered by EU directives are subject to mandatory CE marking. This condition has been a requirement for sanitary manufacturers since 2009. In addition to wash basins, the specification also applies to wash troughs, care-home basins and kitchen sinks. VARICOR® manufactures in accordance with DIN EN ISO 9001: 2015. This ensures that all products are manufactured with constant quality according to a certified process.



CE for wash basins in accordance with DIN EN 14688

- Resistance to temperature changes (70°C / 15°C, 1000 cycles)
- Static load for wall-mounted sanitary fittings of 150 kg surface load over a period of 1 hour
- Complete water draining (VARICOR® basins usually have an incline of 2°–3°)
- Overflow protection with indication of the discharge capacity of the overflow (VARICOR® basins have an overflow capacity of 0.25 l/s)
- Easy cleaning of basin surface (no sharp inner corners or edges)
- Resistance to chemicals and stains (must be removable with abrasive cleaning agents)

CE for wash troughs in accordance with EN 14296

- Static load with at least 75 kg (a 25-kg weight every 500 mm)
- Easy cleaning of basin surface (no sharp inner corners or edges)

CE for baby and child wash basins in accordance with EN 14516

- Resistance to temperature changes (75°C / 12°C, 100 cycles). The water is allowed to accumulate for 10 minutes at a time, then drained off and directly refilled
- Loading the bottom of the tub with 100 kg
- Complete water draining
- Resistance to chemicals and stains (must be removable with abrasive cleaning agents)

CE for kitchen sinks in accordance with DIN EN 13310

- Resistance to temperature changes (90 °C / 15°C, 1000 cycles)
- Complete water draining
- Resistance to dry heat
- Resistance to chemicals and dyes (must be removable with abrasive cleaning agents)



Hygienic properties

Particularly in clinical and biological work areas, rigorous demands are placed on hygiene. For this reason, it is particularly important to choose a material for wash basins and work areas that does not offer any opportunity for germs, bacteria, fungi or microorganisms to develop. The following test results show that the high-quality VARICOR® solid-surface material is excellently suited to all areas of application where the highest demands are placed on hygiene.



Adhesion test

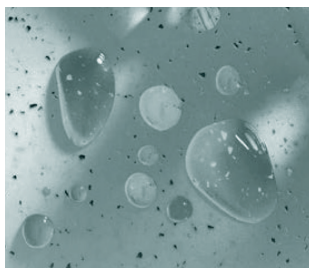
100 microlitres of liquid with 10⁶ bacteria were applied to a VARICOR® surface. Incubation time 5 hours at 37°C and saturated humidity. The surface was cleaned five times, each time with 10 ml sterile, bacteria-free water, and the sample was immersed in an ultrasonic bath (46 kHz).

Number of bacteria remaining out of a total of 1,000,000

Staphylococcus aureus	Staphylococcus epidermidis	Escherichia coli	Pseudomonas aeruginosa
< 1	14	1	1

Result:

The small number of bacteria remaining shows that microorganisms cannot adhere to the VARICOR® surface (see table). The risk of biofilm formation is consequently greatly reduced.



Disinfection test

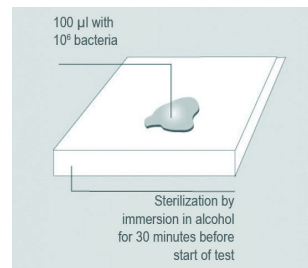
The same bacterial cultures were used as for the adhesion test. The surface was cleaned by immersing the sample in diluted bleach (0.003% chlorine content) for a period of 15 seconds.

Number of bacteria remaining out of a total of 1,000,000

Staphylococcus aureus	Staphylococcus epidermidis	Escherichia coli	Pseudomonas aeruginosa
0	20	0	21

Result:

Bleach minimizes the number of bacteria by 99.99%, i.e. the surface is effectively disinfected. The tests show that, even without antibacterial additives, VARICOR® surfaces can be cleaned of almost all residue using appropriate cleaning methods.



The tests were carried out by an independent laboratory.

* Bleach is used as the disinfectant.



Resistance to disinfectants

When you choose VARICOR®, you choose a product that has been used successfully for more than 30 years in a diverse range of market segments. These include the hygienically sensitive hospital and laboratory sectors. Laboratory tests confirm resistance to all standard disinfectants for surface and hand disinfection.

The LGA has also tested VARICOR® on the basis of DIN EN 12 720: to check the compatibility of VARICOR®, various cleaning agents and disinfectants frequently used in hospitals were provided. The substances to be tested were applied to the sample panels (Alpine White) and covered for 16 hours.

After the cover was removed, the surfaces were cleaned with distilled water.

Assessment of results: after 24 hours. Below is a summary of the substances tested:

Test result from TÜV Rheinland LGA Products GmbH – Nuremberg Furniture Testing Institute

Substances	Concentration	Evaluation*	Result
Bode Sterillium	pure	5	
Bode Sterillium Virugard	pure	5	
Ecolab Spitacid	pure	5	
Braun Meliseptol Rapid	pure	5	
Schülke Desderman pure	pure	5	
Schülke Terralin Liquid	pure	5	
Dr. Schnell Septoderm	pure	5	
Ecolab Skinman Soft	pure	5	
Braun Promanum N	pure	5	
Bode Bacillol AF	pure	5	
Dr. Schnell DESIFOR QUICK	pure	5	
Schülke Terralin Protect	2 %	5	No change. The test surface cannot be distinguished from the adjacent surrounding surface.
Schülke Perform	3 %	5	The substances leave no residue or stains.
Ecolab Incidin Perfekt	3 %	5	
Ecolab Incidin plus	3 %	5	
Ecolab Incidin Active	2 %	5	
Bode Dismozon pur	4 %	5	
Schülke disinfectant cleaner AF	3 %	5	
Braun Melsept SF	2 %	5	
Bode Mikrobac forte	2.5 %	5	
Dr. Schnell DESIFOR B	2 %	5	
Schülke antifect AF	1 %	5	
Dr. Schnell DESIFOR-FORTE AF	3 %	5	
Ecolab Incidin Rapid	2 %	5	
Braun Hex- plus	2 %	5	
Braun Hexaquart forte	2 %	5	
Bode Kohrsolin extra	3 %	5	

The tests were conducted on the colour Alpine White. * Grading scheme from grade 1 (strong change) to grade 5 (no change).





Resistance to chemicals

VARICOR® demonstrates optimum performance characteristics not only in terms of hygiene and disinfectant resistance. Its chemical resistance has also been extensively tested: under normal conditions (1 h, open) and under extreme conditions (16 h, covered) with substances commonly used in hospitals.

Exposure time: 1 hour, open

The following procedure was selected to test the resistance of VARICOR®: **Exposure time on the material to be tested (finish: Alpine White) 1 hour, open.**

Surface condition: all tests were carried out on a surface prepared with 400 grit sandpaper.

The substances marked with • leave no traces after 1 hour of exposure and subsequent cleaning with soap and water. The substances marked with a number leave behind residues (deposits, colour or gloss changes, etc.) after the above cleaning.

The following numbers indicate how the residues are to be removed:

- 1** = scouring powder
- 2** = bleach (chlorine bleach)
- 3** = Scotch-Brite (dry or wet)
- 4** = sandpaper

Please note that the effect of many chemicals on VARICOR® depends on the exposure time and the finish used. For these reasons, it has been shown to be a good idea to consider the expected exposure times and application methods for specific applications and to test the chemicals in advance.

Exposure time: 1 hour, open

Leaves no trace	Leaves a trace removable with active agent	Leaves no trace	Leaves a trace removable with active agent	Leaves no trace	Leaves a trace removable with active agent
●	1 Waste oil	●	Boric acid 10%	●	1 Iron(II) chloride
●	Acetate solution Standard	1	Braunoderm	●	Iron(II) chloride 10%
●	Acetone	1	Braunol solution 2000	●	Glacial acetic acid
●	Ether	4	Bromine	1	Eosin solution
●	Alum solution	1	Bromothymol blue	1	Esbach's reagent
●	Alcohol vinegar, coloured	1	Bromothymol blue 10%	1	esemtan bath oil
●	Formic acid	●	n-butanol	●	Vinegar
●	Formic acid 10%	●	buraton 10F, undiluted	●	Acetic acid 10%
●	Ethyl formate	●	buraton 10F, diluted 1%	●	Acetic acid 95%
●	Ammonia 10%	1	buraton rapid Surface Disinfectant	●	Butyl acetate
●	Ammonia 33 %	●	Butter	●	Ethyl acetate
●	Ammonium hydroxide (ammonia solution 28%)	●	Butyl alcohol	●	Amyl acetate
●	Ammonium sulphate	●	Buzil Bucal cleaner	●	Ethanol
●	Ammonium sulphate 10%	●	Cadmium acetate	●	Ethylene dichloride = 1.2 Dichloroethene
●	Amyl alcohol	●	Cadmium acetate 10%	●	Eugenol
●	Aniline	●	Cadmium sulphate	1	Fala Ofan fresh concentrated sanitary cleaner
●	Aniline 10% (in alcohol)	●	Cadmium sulphate 10%	●	Paint, vinyl resin, wet after 1 h
2	Aniline blue	●	Calcium carbonate	●	Paint, vinyl resin, dry after 24 h.
2	Aniline blue 10%	●	Calcium carbonate 10%	4	Paint, vinyl resin, dry after 24 h.
1	Anios D.D.S.H. disinfectant	●	Calcium chloride	1	Felt tip pen, black
●	Apple juice	●	Calcium chloride 10%	●	Fixer (Kodak Unifix, undiluted)
●	Arabinose	●	Calcium hydroxide	1	Floortop floor care product
●	Ascorbic acid	●	Calcium hydroxide 10%	1	Hydrofluoric acid 10-40%
●	Ascorbic acid 10%	●	Carbol Xylol	1	Forol surface cleaner
●	Asparagine	●	Carbolic acid	1	Freka Sept 80 hand disinfectant
●	Aspartic acid	●	Carbolic acid 10%	●	Formaldehyde 35%
●	Aspartic acid 10%	●	Cayenne pimento (Piri Piri)	●	Photo developer (Ilford ID 11, undiluted)
●	Atrox	●	Chloral hydrate	●	Freon 113
1	Diethyl ether	●	Chloral hydrate 10%	●	Antifreeze agent
●	Eye make-up remover	●	Chloroform	1	Fuchsin solution
●	Baker's yeast	3	Chloroform, covered	●	Galactose
●	Oven cleaner	●	Cholesterol	●	Galactose 10%
●	Baktolin basic	●	Cleansept	●	Gas oil
●	Baktolin wash lotion	●	Coca-Cola	●	Gelatine
●	Barium chloride	●	Cocaine solution	●	Dishwasher detergent (powder)
●	Barium chloride 10%	1	Cutasept G	●	Dishwasher detergent 10%
●	Petrol	1	Cyanoacrylate adhesive, wet after 1 h	●	Glucose
●	Benzene	1	Cyanoacrylate adhesive, dried after 24 h.	●	Glucose 10%
●	Povidone iodine as gynaecolog. solution	4	Desderman (N)	●	Glycerine
●	Povidone iodine as foaming solution	1	Desmanol disinfectant	●	Glycine
1	Betaisodona cleaner	●	1,2-Dichloroethene	1	Graphite grease
●	Beeswax	●	Diesin Forte 3%	1	Grotanat
●	Biokusid disinfectant	1	Digitonin	1	Hair dye
●	Ale, dark	●	Digitonin, saturated solution in alcohol	1	Hair spray
●	Ale, pale	●	Dimethylsulfamide	●	Uric acid
●	Biogel	4	Dimethyl sulfoxide	●	Uric acid 10%
●	Biosurfactant	●	Dioxane	●	Urea
●	Blood	●	Dulcitol	●	Urea 6%
●	Blood group test serum	●	Egg yolk	●	Fuel oil, light
●	Boric acid	●		1	Helipur
				●	Heparin
				1	Elderberry juice

Exposure time: 1 hour, open

Leaves no trace	Leaves a trace removable with active agent	Leaves no trace	Leaves a trace removable with active agent	Leaves no trace	Leaves a trace removable with active agent
●	3 Wood glue, liquid after 1 h.	●	1 Casein 10% (diluted in ammonia)	●	Milk
●	3 Wood glue, dried after 24 h.	●	1 Candle wax red, melted	●	Lactic acid
●	Hydraulic oil	●	1 Ketchup	●	Lactic acid 10%
●	Hydroquinone	●	1 Kiehl Prodesan concentrate	●	Milk chocolate 10% at 50°C
●	Hydroquinone 10%	●	1 Kiehl SanEco concentrate	●	Lactose
●	Hypophysin	●	Table salt	●	Lactose solution 10%
●	Roche imide	●	Saline solution 10%	●	1 Milizid Sanitary Cleaner
●	Immersion oil	●	Aqua regia	●	1 Millon's reagent
●	Incidin Extra N 5%	●	Caffeine	●	2 Mitoxantrone 10 Hexal solution
●	Incidin Liquid (pure)	●	Coal	●	2 Multibionta (solution for infusion)
●	Incidin Plus 2%	●	1 Kohrsolin disinfectant	●	Nutrient agar Standard I
●	Incidur 3%	●	1 Compressor oil	●	Nutrient agar Standard II
●	Inonit	●	1 Crystal violet	●	Nutrient broth Standard I
●	Isopropanol	●	1 Ballpoint pen	●	Nutrient broth Standard II
●	2 Iodine pure	●	Copper sulphate	●	1 Nail polish
●	2 Iodine (1% alcoholic solution)	●	Copper sulphate 10%	●	Nail polish remover
●	1 Iodine-potassium iodide solution	●	1 Varnish, glyptal resin wet	●	1-Naphthol, saturated water solution
●	Yoghurt	●	4 Varnish, glyptal resin dried	●	1-Naphthylamine
●	1 Redcurrant juice	●	White spirit	●	1-Naphthylamine 10% (in alcohol)
●	1 Blackcurrant juice	●	White spirit, benzene-free	●	Sodium acetate
●	1 Redcurrant wine	●	Lactose	●	Sodium acetate 10%
●	Coffee	●	Lactose 10%	●	Sodium bicarbonate
●	Potash lye 10%	●	Fructose	●	Sodium bicarbonate 10%
●	Potassium aluminium sulphate	●	Fructose 10%	●	Sodium carbonate
●	Potassium aluminium sulphate 10%	●	Linseed oil	●	Sodium carbonate 10%
●	Potassium sodium tartrate	●	1 Lipstick	●	Sodium chloride
●	Potassium sodium tartrate 10%	●	Lithium carbonate	●	Sodium chloride 10%
●	Potassium bichromate	●	Lithium carbonate 10%	●	Sodium citrate
●	Potassium bichromate 10%	●	Maggi	●	Sodium citrate 10%
●	Potassium bromate	●	Magnesium carbonate	●	Sodium diethyl barbiturate
●	Potassium bromate 10%	●	Magnesium carbonate 10%	●	Sodium hydrogen sulphate
●	Potassium bromide	●	Magnesium chloride	●	Sodium hydrogen sulphate 10%
●	Potassium bromide 10%	●	Magnesium chloride 10%	●	1 Sodium hydroxide 10%
●	Potassium carbonate	●	Magnesium sulphate	●	4 Sodium hydroxide 40%
●	Potassium carbonate 10%	●	Magnesium sulphate 10%	●	4 Sodium hydroxide (solid state)
●	Potassium chromate	●	Maltose	●	Sodium hypochlorite
●	Potassium chromate 10%	●	Maltose 10%	●	Sodium hyposulphite
●	Potassium hydroxide	●	Mannitol	●	Sodium hyposulphite 10%
●	Potassium hydroxide 10%	●	Mannose	●	Sodium nitrate
●	Potassium iodate	●	Mannose 10%	●	Sodium nitrate 10%
●	Potassium iodate 10%	●	Margarine	●	Sodium sulphate
●	Potassium iodide	●	4 May-Grünwald solution	●	Sodium sulphate 10%
●	Potassium iodide 10%	●	Mayonnaise	●	Sodium thiosulphate
●	Potassium nitrate	●	Myo-inositol	●	Sodium thiosulphate 10%
●	Potassium nitrate 10%	●	Methanol	●	Sodium hypochlorite 12–48° chlorine
●	Potassium permanganate	●	1 Methylene blue	●	Caustic soda 10%
●	1 Potassium permanganate 10%	●	1 Methylene blue 10%	●	Neoprene glue, wet after 1 h.
●	1 Kamillosan	●	Methylene chloride	●	3 Neoprene glue, dried after 24 h.
●	Caramelised sugar	●	Methyl methacrylate	●	Nonne-Appelt-reagent
●	Potato starch	●	Metol	●	Nuoc Mam fish sauce
●	Potato starch, saturated solution	●	Metol 10%	●	1 Nut water (furniture stain)
●	Casein	●	Mikrobac forte 2.5%		

Leaves no trace	Leaves a trace removable with active agent	Leaves no trace	Leaves a trace removable with active agent	Leaves no tracer	Leaves a trace removable with active agent
●	3 Nylander's reagent	●	Sucrose	●	Thymol
●	Ox gall liquid	●	Sucrose 10%	●	Thymol 10% (in alcohol)
●	Ox gall liquid 10%	●	2 Saffron solution	●	Thymol buffer solution
●	n-Octanol	●	Cream, fresh	●	Titanium tetrachloride, covered
●	Octenisept, dyed	●	Salicylic aldehyde	●	Toluene
●	Octyl alcohol	●	Nitric acid 10%	●	Tomato paste concentrate min. 28%
●	Oleic acid	●	Nitric acid 52.5%	●	Glucose
●	Olive oil	●	Hydrochloric acid 10%	●	Glucose solution 10%
●	Oxalic acid	●	1 Hydrochloric acid 37%	●	Trehalose
●	Oxalic acid 10%	●	Saponin	●	Trehalose 10%
●	2 Oxydase reagent	●	Saponin 10%	●	Trichloroacetic acid
●	Paraffin	●	1 Sauerkraut, boiled	●	Trichloroacetic acid 10%
●	1 Paraffin, melted	●	Lard	●	Trichloroethane
●	Paraffin oil	●	Chocolate, melted	●	Trichloroethylene
●	Pentanol	●	Chocolate powder	●	95% potable alcohol, denatured
●	Peptone	●	1 Shoe polish	●	95% potable alcohol, not denatured
●	Perchloric acid	●	Sulphuric acid 10%	●	Trisodium phosphate
●	Perchloric acid 10%	●	Sulphuric acid 50%	●	Trypsin
●	1 Perform disinfectant	●	Sulphuric acid 98%	●	Tryptophan
●	Petroleum benzine 40–70°C	●	4 Soap-free cleaning agent	●	Urease
●	1 Phenol	●	Soapstone solution	●	Vanilla, liquid extract with sugar
●	Phenol 10%	●	(1% potassium hydroxide solution)	●	Vanillin
●	Phenol 50%	●	1 Sekusept (powder), disinfectant	●	Vanillin 10% (in alcohol)
●	Phenyl methylaminosulphate	●	Mustard	●	Vaseline
●	Phenyl methylaminosulphate 10%	●	Sensiva wash lotion (liquid soap)	●	Vitamin C
●	Phenolphthalein	●	Silver nitrate	●	Detergent liquid, concentrated
●	Phenolphthalein 10%	●	1 Silver nitrate 10%	●	Washing powder
●	Phosphoric acid	●	Skinman Soft	●	Washing powder 10%
●	Phosphoric acid 10%	●	Soy broth	●	Hydrogen peroxide 3% 110 vol.
●	4 Phosphoric acid 85%	●	Sorbitol	●	Hydrogen peroxide 30% 110 vol.
●	1 Picric acid	●	Spirit, white	●	Hydrogen peroxide
●	1 Picric acid 10%	●	Spitaderm disinfectant	●	1 Fabric softener
●	Allspice, mild	●	Starch in saline solution	●	Wine vinegar
●	Polyethylene powder	●	Starch solution, saturated	●	Tartaric acid
●	Propanol	●	1 Endorsing ink	●	Tartaric acid 10%
●	1 Bombastus Propar	●	Sterillium hand and skin disinfectant	●	White wine
●	1,2 Propylene glycol	●	Sterillium Virugard	●	1 Mascara
●	1 Pyralvex solution	●	Sublimate solution	●	Xylene
●	Mercury	●	Styrene	●	Toothpaste
●	Mercury II chloride	●	Sumaron (industrial dishwasher detergent)	●	1 Cedar wood oil, thickened
●	Mercury II chloride 10%	●	Tabasco	●	Cigarette ash, hot
●	Raffinose	●	1 Tea	●	Cinnamon (concentrated extract)
●	Raffinose 10%	●	Tar	●	Zinc sulphate
●	Rhamnose	●	Turpentine	●	Zinc sulphate 10%
●	Rhamnose 10%	●	Terralin liquid, undiluted	●	Zinc sulphate saline solution
●	Castor oil	●	Terralin diluted 0.5%	●	Citric acid
●	Castor oil	●	Carbon tetrachloride	●	Citric acid 10%
●	Rilan cleaner and disinfectant	●	Tetrahydrofuran	●	Citric acid zinc sulphate solution
●	1 Rivanol	●	Thiourea	●	Citric acid zinc sulphate solution 10%
●	1 Crude oil	●	1 Thiourea 10%	●	Lemon juice
●	Cane sugar				
●	Cane sugar solution 10%				
●	1 Red wine				

Exposure time: 16 hours, covered

The following procedure was selected to test the resistance of VARICOR®: **Exposure time on the material to be tested (finish: Alpine White) 16 hours, covered.**

Surface condition: all tests were carried out on a surface prepared with 400 grit sandpaper.

The substances in the table on page 15 marked with • leave no traces after 16 hour of exposure and subsequent cleaning with soap and water. The substances marked with a number leave behind residues (deposits, colour or gloss changes, etc.) after the above cleaning.

The following numbers indicate how the residues are to be removed:

- 1** = scouring powder
- 2** = bleach (chlorine bleach)
- 3** = Scotch-Brite (dry or wet)
- 4** = sandpaper

Please note that the effect of many chemicals on VARICOR® depends on the exposure time and the finish used. For these reasons, it has been shown to be a good idea to consider the expected exposure times and application methods for specific applications and to test the chemicals in advance.

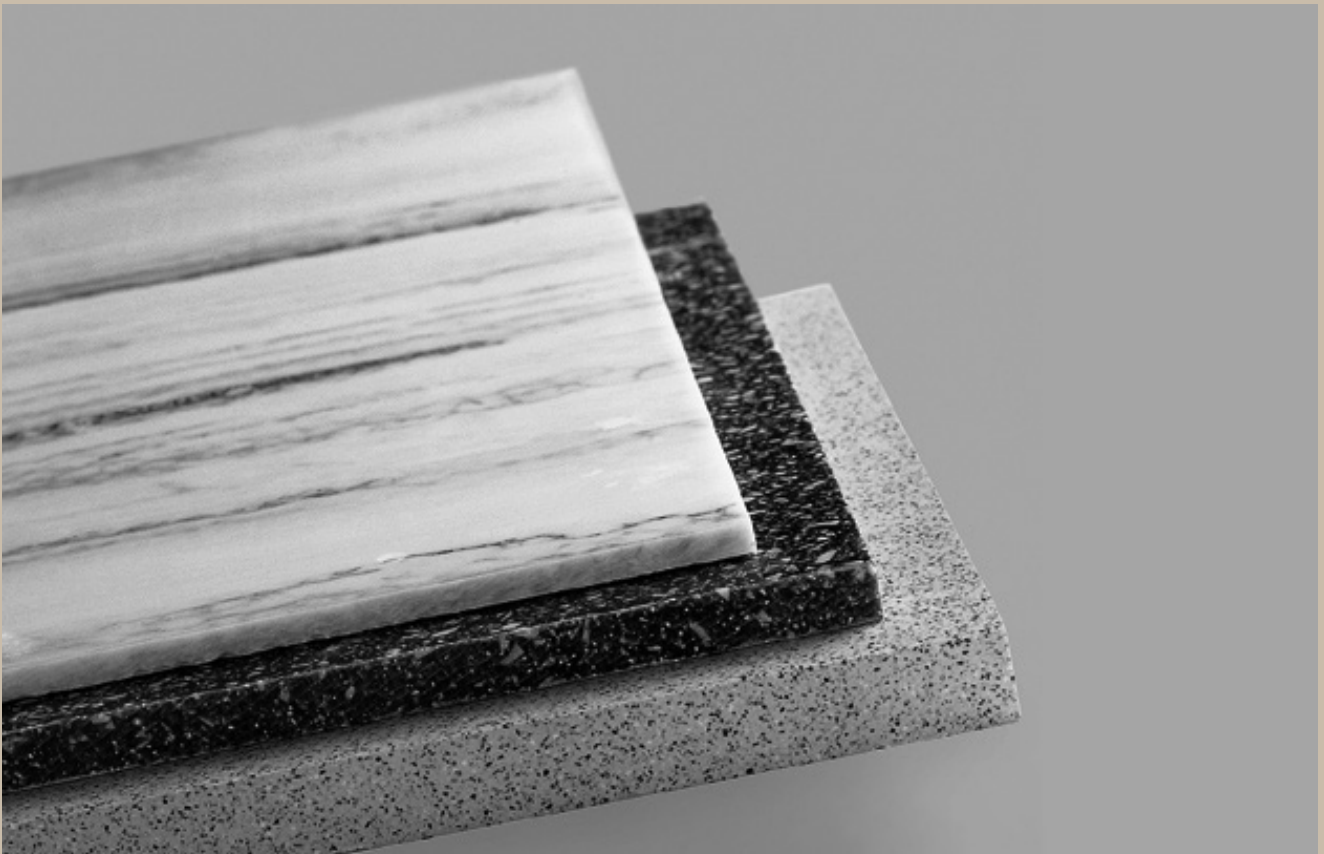
Exposure time: 16 hours, covered

Leaves no trace	Leaves a trace removable with active agent	Leaves no trace	Leaves a trace removable with active agent
●	Ammonia 10%	1	Incidin Extra N 5%
●	Ammonium hydroxide (ammonia solution 28%)	●	Incidin Active 2%
1	Anios D.D.S.H. Disinfectant	●	Incidin Liquid (pure)
●	Antifect AF 1%	●	Incidin Perfekt 3%
1	Diethyl ether	●	Incidin Plus 3%
●	Bacillol AF	●	Incidin Rapid 2%
●	Baktolin basic	●	Incidur 3%
●	Baktolin wash lotion	1	Into
●	Petrol	2	Iodine (1% alcoholic solution)
●	Povidone iodine	1	Chamomile
1	Betaisodona (cleaner)	1	Kiehl SanEco concentrate
●	Biokusid disinfectant	●	Kohrsolin extra 3%
1	Braunoderm	●	Meliseptol Rapid
1	Braunol solution 2000	●	Melsept SF 2%
1	buraton rapid Surface Disinfectant	1	Methanol
●	Cleansept (dental sector)	●	Mikrobac forte 2.5%
1	Chloroform solution	1	Milizid Sanitary Cleaner
4	Chloroform 100%	2	Mitoxantrone 10 Hexal solution
1	Cutasept G	2	Multibionta (continuous intravenous solution)
1	Desderman (N)	1	Sodium hydroxide 10%
●	Desderman pure	4	Sodium hydroxide 40%
●	Disinfectant cleaner AF 3%	●	Sodium hypochlorite
●	DESIFOR B 2%	●	Sodium sulphate
●	DESIFOR FORTE AF 3%	●	Octenisept, dyed
●	DESIFOR QUICK	●	Perform disinfectant 3%
●	Desmanol disinfectant	●	Promanum
1	Diesin Forte 3%	●	Propanol
●	Dismozon pure 4%	1	Bombastus Prepar
1	esemtan bath oil	1	Pyralvex
●	Vinegar	●	Rilan
1	Acetic acid 95%	1	Rivanol
●	Ethanol	2	Saffron solution
1	Fala Ofan fresh sanitary cleaner	1	Sekusept (powder), disinfectant
1	Fala neutral cleaner	●	Septoderm
1	Floortop floor care product	●	Skinman Soft
1	Forol surface cleaner	●	Spitaderm disinfectant
1	Freka Sept 80 hand disinfectant	●	Spitacid
1	gigasept AF forte 5%	●	Sterillium hand and skin disinfectant
1	gigasept med	●	Sterillium Virugard
1	gigasept PAA concentrate	●	Terralin liquid, undiluted
1	gigasept instru AF	●	Terralin Protect 2%
1	gigazyme	●	Carbon tetrachloride
●	Grotanat	●	Trichloroacetic acid
●	Urea 6%	●	Trisodium phosphate
1	Helipur	●	Hydrogen peroxide
●	Hexaquart plus 2%	●	Citric acid 10%
●	Hexaquart forte 2%		
1	ID 213, Dürr Dental disinfectant		



Technical features

Panels and moulded parts comply with the requirements of ISO standard 19712 1-3.



Panels 8, 12, 19 mm

Properties	Measured values	Test bases
Specific weight	1.55 – 1.74 g / cm ³ at 20°C	according to DIN ISO 1183
Elastic modulus	10,900 N/mm ²	according to DIN 53457
Flexural strength (12-mm panel)	60 ± 5 N/mm ²	according to DIN 53452
Compressive strength	115 ± 10 N/mm ²	according to EN ISO 604
Impact strength (12-mm panel)	6.5 kJ/m ²	according to DIN EN ISO 179
Impact resistance, ball drop 450 g (12-mm panel)	no break at 100 ± 10 cm drop height	according to ISO 19 712-2
Joint strength with bonding	60–80% material strength	according to ISO 527
Barcol hardness	65 ± 5	according to DIN EN 59
Erichsen scratch resistance, ground surface	0.6 N	according to DIN EN 438-2
Surface resistance	$R_{DA} = 3.3 \times 10^{13} \Omega$	according to DIN 53482
Contact resistance	$P = 3.1 \times 10^{14} \Omega \cdot \text{cm}$	according to DIN 53482
Volume conductivity	$s = 3.2 \times 10^{15} \Omega^{-1} \cdot \text{cm}^{-1}$	according to DIN 53482
Tracking resistance	CTI 600	according to IEC 60112
Thermal conductivity at 20°C: λ value	1.3 W/m · K	according to DIN 52612
Dimensional stability at heat 60' at constant 70°C (12 mm)	no measurable change	according to ANSI Z 124.3 (6.3)
Coefficient of thermal expansion	$5.05 \times 10^{-5} \text{K}^{-1}$	according to ASTM D 696
Resistance to boiling water	no visible change	according to DIN 53799
Resistance to dry heat	no visible change up to 200°C	according to DIN 68861 T7
Resistance to wet/dry changes	no change	DIN EN 263
Resistance to cigarette burns	no change after removing the tar residues	according to DIN 53799
Flame retardancy	B1 conditions fulfilled for 12-mm sheet material	DIN 4102 Part 1
	B-s1.d0	EN 13501-1+A1: 2013
Deutsche Bahn fire testing	S4 / SR2 / ST2	DIN 54837 / DIN 5510
Rail vehicle fire protection (the colour Polaris was tested)	R1 – HL2	EN 45545-2 2013
VKF fire protection application	fire index 5.3	VKF Switzerland
Migration testing	approved for food contact	IANESCO EU Regulation No. 10/2011
Volatile organic compounds (VOCs)	A+	French Regulation DEVL1101903D and DEVL1104875A
Processing dust, toxicological behaviour	harmless to health in compliance with TLV	certified by Dept of Occupational, Social and Environmental Medicine of Jena Uni
Antibacterial efficacy	highly effective	ISO 22196
Light fastness	blue scale > 6	ISO 4892-2 (proc. A without sprinkling)
Surface test (shrink-hole formation)	compliance with requirement	ANSI Z 124.3 (3.4)
Black body	$\Delta E 0,88$	ANSI Z 124.3 (5.1)
Stain resistance	compliance with requirement	ANSI Z 124.3 (5.2)
Chemical resistance	compliance with requirement	ANSI Z 124.3 (5.5)
Water resistance	compliance with requirement	ANSI Z 124.3 (6.0)
Anti-slip properties	B	DIN 51097
Calorific value	13.3802 MJ/kg	DIN 51900
Disposal	waste code 17 02 03	plastic waste

Moulded parts

Properties	Measured values	Test bases
Fire test	compliance with requirement	ANSI Z 124.3 (5.6)
Cold / hot water alternating test:		
Kitchen sink 90°C / 15°C	CE compliant (> 5000 cycles)	according to DIN EN 13310
Wash basin 70°C / 15°C	CE compliant (> 5000 cycles)	according to DIN EN 14688

The tests were conducted on the colour Alpine White.



The environment and VARICOR®

The protection of the environment and health is a fundamental requirement for all construction products. It is not just a matter of reducing energy consumption, exhaust gases and waste water during production. Products' environmental impact is the focus of public attention, and social and economic aspects are becoming increasingly important, in other words sustainable development is essential. A product's entire life cycle is relevant, from the use of resources and energy through all production stages to the usage phase and disposal.

What is VARICOR®?

VARICOR® is a solid-surface material, 2/3 of which consists of the natural filler alumina trihydrate (ATH), also known as aluminium hydroxide, and 1/3 of high-quality copolymers as binders. A further component, and responsible for the colouring of the material, is colour pigments based on mineral substances. VARICOR® is available both as semi-finished products (panels and basins) and as finished parts, e.g. made-to-measure washbasins and customer-specific bespoke moulded parts.

How is VARICOR® produced?

Production is divided into three stages:

- Preparation of the raw materials: ATH and pigments
- Production of the modified copolymer
- Manufacture of VARICOR® by combining the above components.

VARICOR® procures the raw materials required for production from a variety of suppliers. When selecting them, we make sure that the requirements of environmentally conscious production are taken into account.

Where is VARICOR® used?

The VARICOR® solid-surface material is a very versatile product whose advantages mainly come to the fore in high-quality interior fixtures, sanitary ware and kitchen fixtures. Because the non-porous nature of the material means its surface is extremely hygienic and easy to clean, VARICOR® is often used in very sensitive areas, such as in laboratory and medical technology. VARICOR® is also ideal for applications where space is at a premium, such as is often required in the field of transportation engineering (aviation, and ship and train construction).



VARICOR® fabrication

VARICOR® is a solid-surface material that can be fabricated with woodworking machines and tools. Fabrication may generate dust, but it is harmless to humans in this composition if the threshold limit values (TLV) are observed. The special polyester and acrylic adhesives used emit volatile organic vapours which, however, do not pose any hazards if the work area is adequately ventilated. During fabrication, it is important that the manufacturer's instructions are followed closely.

Does VARICOR® give off emissions in daily use?

When the specified production processes and regulations are followed, the monomers present in the material are converted into polymers during curing. These processes are strictly monitored by the company's own laboratory, and the individual production lots are only released after a full inspection. VARICOR® has also undergone an overall migration audit (food law assessment) by independent institutes. The material met the very high requirements of this audit. The mineral pigments used do not contain any heavy metals and are free of toxic or carcinogenic substances.

Disposing of VARICOR®

With VARICOR® some of the waste generated during production is reused. Colours contained as granulates in our standard finishes are ground to granulates and returned to production. VARICOR® waste that is not suitable for reuse is passed on via appropriate disposal companies to companies that use such products, e.g. as filling material. Another possibility is the thermal recycling of residual waste, as no toxic gases occur when it is incinerated properly, and the resins used as binders and the energy they contain can be fully utilised. Packing: when packaging our products, we take care to minimize packing materials and reuse them wherever possible. Packaging that can no longer be used can be recycled or used thermally to generate energy.



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