

# **Chemical resistance results**





PRODUCTS	CONCENTRATION (mol/L)	EV T/ AT PR( DLW	MIPOLAM EVERCARE™ TARALAY & TARALAY ATTRACTION PROTECSOL®2 DLW LINOLEUM NEOCARE™					TARASAFE SPARCLEAN®			GTI PUR+		
		5'	2h	24h	5'	2h	24h	5'	2h	24h	5'	2h	24h
		CON	CENTRA	TED AC	ID								
Acetic acid - CH <sub>3</sub> -COOH	14	0	0	0	0-1d	0-1d	0-1d	1d	1d	2d	0	0	0-1d
Chloric acid - HCl			0	0	0	0 1c	1c	1c					
Citric acid - C <sub>6</sub> H <sub>8</sub> O <sub>7</sub>	1	0 0 0 0 0 0		0	0	0	0	0	0				
Formic acid H-COOH	22	0	0	0	0	0-1d	1-2d	1-2d	2d	3d	0	0	1-2c/d
Lactic acid - C <sub>3</sub> H <sub>6</sub> O <sub>3</sub>	12	0	0	0	0	0	0	0	0	0	0	0	0
Nitric acid - $HNO_3$	14	0	1c/d	3c/d	2c/d	2c/d	3c/d	0	2-3c/d	3-4c/d	0	1c	2c/d
Phosphoric acid H <sub>3</sub> PO <sub>4</sub>	15	0	0	0	0	0	0	0	0	1d	0	0	1c
Perchloric acid $HClO_4$	9	0 c/d	0 c/d	2c	0 c/d	0 c/d	3c/d	0 c/d	2c/d	4c/d	0 c/d	1-2c	3-4c
Sulphuric acid - H <sub>2</sub> SO <sub>4</sub>	19	0	4c	4c	3c/d	4c/d	4c/d	3-4c/d	4c/d	4/cd	2c	4c/d	4c/d
Trichloracetic acid - CCl <sub>3</sub> -COOH	15	0	0d	1-2d	1d	2-3d	4d	2-3d	4d	4d	0 d	0 d	2-3c/d
Trifluoroacetic acid - CF <sub>3</sub> -COOH	13	0	0	0	1d	1d	1d	2-3d	2-3d	3d	0	0	0
		DILU	ITED AC	ID (N/10	))								
Acetic acid - CH <sub>3</sub> - COOH	0,1	0	0	0	0	0	0	0	0	0	0	0	0
Chloric acid - HCl	0,1	0	0	0	0	0	0	0	0	0	0	0	0
Citric acid - C <sub>6</sub> H <sub>8</sub> O <sub>7</sub>	0,1	0	0	0	0	0	0	0	0	0	0	0	0
Formic acid - H-COOH	0,1	0	0	0	0	0	0	0	0	0	0	0	0
Lactic acid - $C_3H_6O_3$	0,1	0	0	0	0	0	0	0	0	0	0	0	0
Nitric acid - HNO <sub>3</sub>	0,1	0	0	0	0	0	0	0	0	0	0	0	0
Perchloric acid - HClO <sub>4</sub>	0,1	0	0	0	0	0	0	0	0	0	0	0	0
Phosphoric acid - H <sub>3</sub> PO <sub>4</sub>	0,1	0	0	0	0	0	0	0	0	0	0	0	0-1c
Trifluoroacetic acid - CF <sub>3</sub> -COOH	0,1	0	0	0	0	0	0	0	0	0	0	0	0
Sulphuric acid - H <sub>2</sub> SO <sub>4</sub>	0,1	0	0	0	0	0	0	0	0	0	0	0	2c/d
Trichloracetic acid - CCl <sub>3</sub> -COOH	0,1	0	0	0	0	0	0	0	0	0	0	0	0



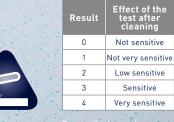


PRODUCTS	CONCENTRATION (mol/L)	EV T/ AT PR( DLW	MIPOLAI ERCARI ARALAY TRACTI DTECSO ( LINOL EOCARE	E™ & ON I <b>L®2</b> EUM	& WA	TARALA LL COVI OTECSO	ERING		ARASAF Arcle <i>i</i>		GTI PUR+		
		5'	2h	24h	5'	2h	24h	5'	2h	24h	5'	2h	24h
		CONC	ENTRA	TED BAS	6E								
Ammonia - NH₄OH	10,8	0	0	0	0	0	0	0	0	0	0	0-1c	1c
Caustic soda - NaOH	15	0	0	0	0	1d	3d	0-1d	1d	2d	1c/d	1c/d	2-3c/ d
DILUTED BASE (N/10)													
Ammonia - NH₄OH	0,1	0	0	0	0	0	0	0	0	0	0	0	0
Caustic soda - NaOH	0,1	0	0	0	0	0	0	0	0	0	0	1c	2-3c/ d
		REA	CTIVE PI	RODUCT	S								u
Silver nitrate - AgNO <sub>3</sub>	1	0	0	0	0	0	2-3c	0	0	0c	0	2c	4c
K-Permanganate - KMn04	5% m/m in water	0-1c	2c	2c	4c	4c	4c	0	1-2c	2-3c	3-4c	4c	4c
			SOLVE	NTS									
Benzyl Acetate	/	0	2d	2d	0	0	1d	0-1d	0-1d	1-2d	0	0	1d
Ethyl Acetate	/	0	1d	1d	0	0	0-1d	0	0	1d	0	0	0
Acetone	/	0	1d	1d	0	0	1d	0-1d	0	1d	0	0	0-1d
Aceto-nitril	/	0	0	0	0	1d	1d	0	1d	1-2d	0	0	0
Dichloromethane	/	0	0	0	1-2d	1-2d	2-3d	1d	1d	1-2d	0	0	0
Tetrachloroethane	/	0	1d	3d	0-1d	3d	3-4d	1d	1d	2-3d	0	1-2d	2d
Dimethyl Sulfoxide - DMS0	/	0	0	0	0	0	0-1d	0-1d	0	1-2d	1d	1-2d	1-2d
Ethyl Ether	/	0	0	0	0	0-1d	0-1d	0	1d	1d	0	0-1d	0-1d
Heptane	/	0	0	0	0	0	0	0	0	0-1d	0	0-1d	0-1d
Hexane	/	0	0	0	0	0	0	0	0	0	0	0	0
Methyl Ethyl Cétone (MEK)	/	1d	1d	1-2d	1d	2d	2d	1-2d	1-2d	1-2d	0-1d	0-1d	0-1d
N-Methyl Pyrolidone	/	0	4d	4d	1d	4d	4d	4d	4d	4d	3-4d	4d	4d
Tetrachlorethylene / perchloréthylène	/	0	0	0	0	0-1c	0-1c	0-1d	0-1d	1d	0	0-1d	0-1d
Trichlorethylene	/	0	0	0	1d	1-2d	1-2d	1d	1-2d	1-2d	0	0	0
Tetrahydrofurane THF	/	3-4d	4d	4d	3-4d	3-4d	3-4d	3-4d	3-4d	3-4d	4d	4d	4d
Xylene	/	0	0	0	1d	3d	3d	1d	1d	1d	0	0	0



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PRODUCTS	CONCENTRATION (mol/L)	MIPOLAM EVERCARE™ TARALAY & ATTRACTION PROTECSOL®2 DLW LINOLEUM NEOCARE™			TARALAY & WALL COVERING <b>PROTECSOL</b> ®			TARASAFE Sparclean®			GTI PUR+		
		5'	2h	24h	5'	2h	24h	5'	2h	24h	5'	2h	24h
			ALCOH	OLS									
Amylic alcohol	/	0	2c	2c	2c	4c	4c	1c	3c	4c	0	1c	2c
Amylic alcohol - Pentanol	/	0	0	0	0	0	0	0	0	0	0	0	1d
Butylic alcohol - Butanol	/	0	0	0	0	0-1d	0-1d	0	1d	1d	0	0-1d	0-1d
Ethylic alcohol - Ethanol	/	0	0	0	0	0	0	0	1d	1d	0	0-1d	0-1d
Isopropyl Alcohol - Isopropanol	/	0	0	0	0	0	0	0	0	0	0	0	0-1d
Methylic Alcool - Methanol	/	0	0	0	0	0	0	0	0	0	0	0	0
2-Methyl 2,4 - Pentanediol	/	0	0	0	0	0	0	0	0	0	0	0	0
PHARMACEUTICALS PRODUCTS													
lodised alcohol	/	0	2c	2c	2c	4c	4c	1c	3c	4c	0	1c	2c
Amidon *	/	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Betadine	/	0	0	0-1c	0-1c	2-3c	3-4c	0	0	1-2c	1c	3c	4c/d
Coomassie Brilliant Blue Composition	0.1 g of Coomassie Blue + 18.2 mL of water + 18.2 mL of ethanol + 3.6 mL of AAg	0	0	0	2c/d	3c	3c	0	1c	1-2c	1c	3-4c	3-4c
Methylene Blue	/	0	0	0	4c	4c	4c	3c	4c	4c	2c	4c	4c
Chloroform = Trihalomethane	/	0	0-1d	0-1d	2d	2-3d	3d	1d	2d	2d	1d	0-1d	1d
Crystal violet	4% m/m in water	0	0	0	2-3c	4c	4c	0	1-2c	4c	3-4c	4c	4c
Oxygenated Water = Hydrogen Peroxyde	/	0	0	0	0	0	0	0	0	0	0	0	0
Eosin aquous phase	/	0	0	0	1c	4c	4c	1c	2-3c	3-4c	2c	2c	3-4c
Formaldehyde = Formalin (Liquid phase)	/	0	0	0	0	0	0	0	0	0	0	0	0
Potassium lodide *	10% m/m in water	0	0	0	0	0	0-1c	0	0	0	0	0	0-1c
Safranin (aquous phase)	1% m/m in water	0	0	0	0-1c	2c	4c	0-1c	1c	1c	2c	3-4c	4c
Safranin (solvent borne)	1% m/m in ethanol	0	0	0	4c	4c	4c	4c	4c	4c	4c	4c	4c
Solution de Milian (violet)	/	0	0	0	0	4c	4c	0-1c	1c	4c	4c	4c	4c
Crystal violet (alcohol phase)	2% m/m in ethanol	0	0	1c	4c	4c	4c	4c	4c	4c	4c	4c	4c
	-	COS	METIC P	RODUC	TS								
Cream foundation	Affinitone, Maybeline	0	0	0	0	0	0	0 c	0-1c	0-1c	1c	1c	1c
Lipstick	/	0	0	0	0	0	0-1c	0-1c	0-1c	1c	3c	3c	4c
Hair dye	90 black, Saint Algue	0	0-1c	0-1c	3-4c	4c	4c	0	4c	4c	2-3c	4c	4c

\* Warning!: Yellowing of floorcovering on a long term in the lack of natural light and in case of insufficient detergent process.





PRODUCTS	CONCENTRATION (mol/L)	EV T/ AT PR( DLW	MIPOLAM EVERCARE™ TARALAY & TARALAY TARACTION & WALL COVERING ROTECSOL <sup>©</sup> 2 PROTECSOL <sup>®</sup> W LINOLEUM NEOCARE™					GTI PUR+					
		5'	2h	24h	5'	2h	24h	5'	2h	24h	5'	2h	24h
		F	00D PR	ODUCT									
Butter	/	0	0	0	0	0	0	0	0	0	0	0	0
Coca-Cola	/	0	0	0	0	0	0	0	0	0	0	0	0
Beer	Ottweiler Pils	0	0	0	0	0	0	0	0	0	0	0	0
Concentrated Lemon	Silicia	0	0	0	0	0	0	0	0	0	0	0	
Olive oil	Puget	0	0	0	0	0	0	0	0	0	0	0	0
Milk	Régilait, concentrated milk	0	0	0	0	0	1d	0	0	0-1d	0	0	1c/d
Mustard	Amora	0	0	0	0	0	0-1c	0	0	0-1c	0	0	1-2c
Ketchup	Amora	0	0	0	0	0	0	0	0	0	0-1c	0-1c	1c
Concentrated Tomato	Victoria	0	0	0	0	0	1c	0	0-1c	1c	0-1c	2-3c	3c
Fruit sirup	Teisseire 0% sugar	0	0	0	0	0	1d	0	0	1c	0	0	0
Coffee	/	0	0	0	0	0	1c	0	0	0	0	1c	1-2c
Thea	/	0	0	0	0	0	0	0	0	0	0	0	0
Wine vinegar	7% acidity-rate	0	0	0	0	0	0	0	0	0	0	0	0
Red Wine	Côtes du Rhône	0	0	0	0	0	0	0	0	0	0	0 c	0
		DOM	IESTIC I	RODUC	т								
Shoe Shine	/	0	0	0	0	0	1-2c	0	0	0-1c	0	1c	2c/d
Bleach - Sodium Hypochlorite	/	0	0 c	0	0	1-2c	3c	0	0	1-2c	0-1c	0-1c	0-1c
Ballpoint pen	blue, Niceday	0	1-2c	2c	0	1c	1c	1c	1c	0-1c	2c	2c	3-4c
Onyx	black, Niceday	0	0	0	2-3c	2-3c	4c	3c	3-4c	3-4c	4c	4c	4c
		CLE	ANING I	PRODUC	т								
Cif - multi usage cleaner	/	0	0	0	0	0	0	0	0	0	0	0	0
Mir - multi usage cleaner	/	0	0	0	0	0	0	0	0	0	0	0	0
Atout Vert	/	0	0	0	0	0	0	0	0	0	0	1c	2c/d
Alcal sols	/	0	0	0	0	0	0	0	0	0-1d	0	0	0
Metamat	/	0	0	0	0	0	0	0	0	0	0	0	0
Novabiotis - éco solvants	/	0	0	0	0	0-1d	0-1d	0-1d	1-2d	2d	0	0	1d
		HYDR	OALCO	HOLIC G	EL								
Sterilium Gel	/	0	0	0	0	0	0	0	0	0	0	0	0
Anios gel 85NPC	/	0	0	0	0	0	0	0	0	0	0	0	0
Nexcar	/	0	0	0	0	0	0	0	0	0	0	0	0
Purell	/	0	0	0	0	0	0	0	0	0	0	0	0
Stoko Pro Gel	/	0	0	0	0	0	0	0	0	0	0	0	0
Keno Sept-G	/	0	0	0	0	0	0	0	0	0	0	0	0



### Expression of results

RESULT	EFFECT OF THE TEST AFTER CLEANING
0	Not sensitive
1	Not very sensitive
2	Low sensitive
3	Sensitive
4	Very sensitive

For a better appreciation of the result, the result from 1 to 4 is completed with another indicator c (like colouration) or d (like deterioration):

- The **c** indicator is linked to the aesthetical aspect of the flooring
- The d indicator is the factor which directly influences the maintenance conditions of the flooring.

## **Reminder:** cleaning of lodised alcohol stains

- 1. immediate action: soak up with a cloth
- later action: apply an impregnated cloth with a mix made of 75% bleach and 25% non-coloured ethylic alcohol to the stain for several hours. Repeat action if necessary.

### WARNING:

- the preparation must be done with protection (gloves, glasses) and in small quantity: < 1l
- pour the alcohol in the bleach carefully, because of calories emission, it must not be prepared in a closed bottle.

### **RESISTANCE TO STAINING**

The test consists in measuring the resistance of the floorcovering to chemical products to which it can be exposed during its usage. These different chemical products (liquid or solid) are applied on a sample during a precise period (5min, 2 hours or 24 hours). After cleaning, the change of aspect is noted (colouration, deterioration etc...) The test is based on the EN 423 / EN ISO 26987 norm.

N°	OPERATION	METHOD	ILLUSTRATION
1	Preparation of samples	<ol> <li>Cut a A4 sample.</li> <li>Cut a 4x4cm piece of absorbing paper for every test with a liquid product.</li> </ol>	
2	Application of the staining liquids	<ol> <li>For every tested liquid product, apply a piece of absorbing paper on the sample.</li> <li>Mark with a marker pen the space corresponding to every products used.</li> <li>Soak the clothe with 10 droplets of liquid product.</li> <li>Apply a strip of glass on the textile squares soaked with products.</li> </ol>	
3	Time of contact	<ol> <li>Leave the product in contact with the surface of the flooring for 2hours*.</li> </ol>	
4	Cleaning	<ol> <li>Remove and clean the glass strip with ethanol.</li> <li>Remove and throw away the absorbing paper squares.</li> <li>Take off with a spatula the remaining solid products.</li> <li>Clean the stains with a cloth impregnated with ethanol until a colouration appears on the cloth.</li> <li>Evaluate the resistance to staining of the flooring for every tested product.</li> </ol>	Autom Autom Autom S

\* Remark: If it is a 5 min test, the protocol is different. The product is directly in contact with the flooring (without absorbing paper and glass strip)

