

# Chemical Resistance

## Test conditions (in accordance with DIN 53428):

Reaction time: 6 weeks at room temperature, except for concentrated acids, bases and solvents: 7 days at room temperature

## Evaluation criteria:

Changes in tensile stress and elongation at rupture (dry samples), volume change

## Evaluation levels:

- 1... Excellent resistance (change in properties of <10 %)
- 2... Good resistance (change in properties between 10 % and 20 %)
- 3... Moderate resistance (change in some properties of 20 %)
- 4... No resistance (change in all properties of more than 20 %)

	Sylomer®	Sylodyn®	Sylodamp®		Sylomer® FR	Sylomer® EK	Sylomer® CT
<b>Water / watery solutions</b>							
Water	1	1	1		1	1	1
Ferrous chloride 10 %	1	1	1		1	1	1
Sodium carbonate 10 %	1	1	1		1	1	1
Sodium chlorate 10 %	1	1	1		1	1	1
Sodium chloride 10 %	1	1	1		1	1	1
Sodium nitrate 10 %	1	1	1		1	1	1
Tensides (various)	1	1	1		1	1	1
Hydrogen peroxide 3 %	1	1	1		1	1	1
Concrete slurry	1	1	1		1	1	1

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<b>Acids and Bases</b>							
Formic acid 5 %	3	3	3		2	3	3
Acetic acid 5 %	2	2	2		2	2	2
Phosphoric acid 5 %	1	1	1		1	1	1
Nitric acid 5 %	4	4	4		4	4	4
Hydrochloric acid 5 %	1	1	1		1	1	1
Sulfuric acid 5 %	1	1	1		2	1	1
Ammonia solution 5 %	1	1	1		2	1	1
Potassium lye 5 %	1	1	1		1	1	1
Soda lye 5 %	1	1	1		2	1	1

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<b>Resistance to other influences</b>							
Hydrolysis <sup>2</sup>	1	1	1		2	2-3	2-3
Ozone	1	1	1		1	1	1
UV radiation and weather	1-2	1-2	1-2		1-2	1-2	1-2
Biological stability	1	1	1		1	1 <sup>1</sup>	1 <sup>1</sup>

	Sylomer®	Sylodyn®	Sylodamp®		Sylomer® FR	Sylomer® EK	Sylomer® CT
<b>Oils and Fats</b>							
ASTM Oil No. 1	1	1	1		1	1	1
ASTM Oil No. 3	2	2	1		2	1	1
Drilling oil	2	2	2		-	3	2-3
Hydraulic oil	depending on composition/additives						
Motor oil	1	1	1		-	1	1
Forming oil	1	1	1		-	1	1-2
Flange lubricant	3	1-2	3		-	1-2	2
Point grease	1-2	1-2	1-2		-	1-2	1-2

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<b>Solvents</b>							
Acetone	4	4	4		4	4	4
Diesel/heating oil	2	2	2		3	2	2
Motor gasoline/petrol	3	3	3		4	2-3	3
Glycerine	1	1	1		1	1	1
Glycols	2	1-2	2		3	2	2
Benzine/hexan	2	1	2		1-2	1	1
Methanol	4	3	4		-	2	2-3
Aromatic hydrocarbons	4	4	4		4	4	4

<sup>1</sup> fungicide equipped  
<sup>2</sup> 28 days, 70 °C, 95 % relative humidity

All information and data is based on our current knowledge. The data can be applied for calculations and as guidelines, are subject to typical manufacturing tolerances, and are not guaranteed. We reserve the right to amend the data.