



**tecnocoat**  
HOT SPRAY COATINGS

## CHEMICAL RESISTANCE LIST

TECNOCOAT P-2049

02/2024

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TECNOPOL SISTEMAS S.L., manufacturer, and formulator of waterproofing systems, through this report, describes the results of the exposure of the pure polyurea membrane **Tecnocoat P-2049** to different chemical products.

#### EXPOSURES INTERPRETATION:

- **RESISTS:** no significant weight gains. Not swelling. No significant loss of elongation, hardness, or tensile strength.
- **LOSS OF COLOR:** no significant weight gains. No swelling, minor softening. No significant loss of elongation, hardness, or tensile strength.
- **NO RESISTS:** very significant weight gains and swelling. Significant loss of elongation, hardness, or tensile strength.

#### TYPES OF CONTACT | INTERPRETATION:

- **IMMERSION:** tanks and reservoirs. Test made at 25°C (79°F) in contact with for 6 months.
- **TEMPORARY:** second containment; 48 hours of exposition.
- **SPILL:** occasional spills with cleaning

PRODUCT in contact with		Immersion	Temporary	Spill
<b>WATER</b>				
brine	---	Resists	Resists	Resists
chlorinated water	---	Loss of color	Loss of color	Loss of color
deionized water	H <sub>2</sub> O	Loss of color	Loss of color	Loss of color
distilled water	H <sub>2</sub> O	Loss of color	Loss of color	Loss of color
raw water	H <sub>2</sub> O	Resists	Resists	Resists
seawater	---	Resists	Resists	Resists
softened water	H <sub>2</sub> O	Resists	Resists	Resists
<b>SEWAGE</b>				
hydrogen sulfide gas	H <sub>2</sub> S	No resists	No resists	Loss of color
methane gas	CH <sub>4</sub>	Loss of color	Loss of color	Loss of color
mic (bacterial)	---	Loss of color	Resists	Resists
sewage	---	Loss of color	Resists	Resists
sources treated	---	Loss of color	Resists	Resists
<b>ACIDS (pH&gt;2,5)</b>				
acetic acid (max. 5%)	C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	No resists	Loss of color	Resists
acrylic	C <sub>3</sub> H <sub>4</sub> O <sub>2</sub>	No resists	No resists	Loss of color
butyric (max. 10%)	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	No resists	No resists	Loss of color
chromic (max. 2%)	CrO <sub>3</sub>	No resists	No resists	Loss of color
citric	C <sub>6</sub> H <sub>8</sub> O <sub>7</sub>	Loss of color	Loss of color	Loss of color
formic (max. 50%)	CH <sub>2</sub> O <sub>2</sub>	No resists	No resists	Loss of color
Fluorosilicic	H <sub>2</sub> SiF <sub>6</sub>	No resists	No resists	Loss of color
hydrochloric (max. 20%)	HCl	Loss of color	Loss of color	Loss of color
hydrofluoric	HF	No resists	No resists	No resists
lactic	C <sub>3</sub> H <sub>6</sub> O <sub>3</sub>	No resists	Loss of color	Resists
nitric (max. 15%)	HNO <sub>3</sub>	No resists	No resists	Loss of color
Oleic	C <sub>18</sub> H <sub>34</sub> O <sub>2</sub>	No resists	No resists	Resists
phosphoric (max. 70%)	H <sub>3</sub> PO <sub>4</sub>	Loss of color	Loss of color	Loss of color
stearic	C <sub>18</sub> H <sub>36</sub> O <sub>2</sub>	No resists	No resists	Loss of color
sulfamic	H <sub>3</sub> NO <sub>3</sub> S	No resists	No resists	Loss of color

sulphuric acid (max. 10%)	H <sub>2</sub> SO <sub>4</sub>	No resists	Loss of color	Loss of color
<b>ALCALIS</b>				
ammonium hydroxide (max. 10%)	NH <sub>4</sub> OH	Loss of color	Loss of color	Resists
calcium hydroxide (max. 30%)	CaH <sub>2</sub> O <sub>2</sub>	Loss of color	Loss of color	Resists
calcium hypochlorite (max. 15%)	CaCl <sub>2</sub> O <sub>2</sub>	Loss of color	Loss of color	Resists
carbon disulfide	CS <sub>2</sub>	Loss of color	Loss of color	Resists
detergents	---	No resists	Loss of color	Resists
potassium hydroxide (max. 20%)	KOH	Loss of color	Resists	Resists
soaps	---	Loss of color	Loss of color	Resists
sodium bicarbonate	NaHCO <sub>3</sub>	Resists	Resists	Resists
sodium carbonate	Na <sub>2</sub> CO <sub>3</sub>	Loss of color	Loss of color	Resists
sodium chlorite	NaClO <sub>2</sub>	Resists	Resists	Resists
sodium hydroxide-caustic soda (max. 20%)	NaOH	Loss of color	Resists	Resists
nitric sodium	NaNO <sub>2</sub>	Resists	Resists	Resists
sodium sulfate	Na <sub>2</sub> O <sub>4</sub> S	Loss of color	Loss of color	Resists
trisodium phosphate	Na <sub>3</sub> O <sub>4</sub> P	Loss of color	Loss of color	Resists
<b>SALTS (solids, no diluted)</b>				
calcium bromide	CaBr <sub>2</sub>	Loss of color	Loss of color	Resists
calcium chloride	CaCl <sub>2</sub>	Loss of color	Loss of color	Resists
cuprous chloride	CuCl	Loss of color	Loss of color	Resists
ferric chloride	FeCl <sub>3</sub>	No resists	Loss of color	Resists
iron sulfate	Fe <sub>2</sub> O <sub>12</sub> S <sub>3</sub>	Loss of color	Loss of color	Resists
ferrous chloride	Cl <sub>2</sub> Fe	No resists	Loss of color	Resists
lithium bromide	BrLi	Loss of color	Loss of color	Resists
magnesium chloride	Cl <sub>2</sub> Mg	Loss of color	Loss of color	Resists
magnesium sulfate	MgO <sub>4</sub> S	Loss of color	Loss of color	Resists
potassium iodide	KI	No resists	Loss of color	Resists
potassium mono persulphate	K <sup>+</sup> O-S(=O) <sub>2</sub> (-OOH)	No resists	Loss of color	Resists
sodium chloride	NaCl	Resists	Resists	Resists
sodium nitrate	NaNO <sub>2</sub>	Loss of color	Loss of color	Resists
zinc bromide	ZnBr <sub>2</sub>	Loss of color	Loss of color	Resists
<b>DETERGENTS</b>				
chlorine dioxide	ClO <sub>2</sub>	Resists	Resists	Resists
chlorine	ClNaO	Loss of color	Loss of color	Resists
hydrogen peroxide (max.35%)	H <sub>2</sub> O <sub>2</sub>	Loss of color	Loss of color	Resists
Phosphorus	P	Loss of color	Loss of color	Resists
sodium hypochlorite (max. 30%)	NaOCl	Resists	Resists	Resists
sodium silicate	Na <sub>4</sub> O <sub>4</sub> Si	Loss of color	Loss of color	Resists
<b>AROMATICS</b>				
benzene	C <sub>6</sub> H <sub>6</sub>	No resists	No resists	Loss of color
chlorobenzene	C <sub>6</sub> H <sub>5</sub> Cl	No resists	No resists	Loss of color
condensed	---	No resists	No resists	Loss of color
ethylbenzene	C <sub>8</sub> H <sub>10</sub>	No resists	No resists	Loss of color

tert-Butyl methyl ether (mtbe)	C <sub>5</sub> H <sub>12</sub> O	No resists	No resists	Loss of color
nitrobenzene	C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>	No resists	No resists	Loss of color
pah's	C <sub>9</sub> H <sub>10</sub> N <sub>2</sub> O <sub>3</sub>	No resists	No resists	Loss of color
phenol	C <sub>6</sub> H <sub>5</sub> OH	No resists	No resists	Loss of color
styrene	C <sub>8</sub> H <sub>8</sub>	No resists	No resists	Loss of color
toluene	C <sub>7</sub> H <sub>8</sub>	No resists	No resists	Loss of color
xylene	C <sub>24</sub> H <sub>30</sub>	No resists	No resists	Loss of color
<b>CARBURANTS/SOLVENTS</b>				
oil	---	Loss of color	Loss of color	Loss of color
diesel	---	Loss of color	Loss of color	Loss of color
gasoline	---	No resists	No resists	Loss of color
hydraulic oils	---	Loss of color	Resists	Resists
jp-4	---	No resists	No resists	Loss of color
jp-5	---	No resists	No resists	Loss of color
kerosene	---	No resists	No resists	Loss of color
mineral spirits	---	No resists	No resists	Loss of color
motor oils	---	Resists	Resists	Resists
naphtha	---	No resists	No resists	Loss of color
natural gas	---	Loss of color	Loss of color	Loss of color
trichloroethylene 1'1'	C <sub>2</sub> HCl <sub>3</sub>	No resists	No resists	Loss of color
carbon tetrachloride	CCl <sub>4</sub>	No resists	No resists	Loss of color
isobutyl chloride methyl	C <sub>5</sub> H <sub>11</sub> Cl	No resists	No resists	Loss of color
methylene chloride	CH <sub>2</sub> Cl <sub>2</sub>	No resists	No resists	Loss of color
vinyl trichloride	ClCH <sub>2</sub> CHCl <sub>2</sub>	No resists	No resists	Loss of color
acetone	C <sub>3</sub> H <sub>6</sub> O	No resists	No resists	Loss of color
methyl amyl ketone	C <sub>7</sub> H <sub>14</sub> O	No resists	No resists	Loss of color
methyl isobutyl ketone	C <sub>6</sub> H <sub>12</sub> O	No resists	No resists	Loss of color
<b>OTHERS</b>				
acetaldehyde	CH <sub>3</sub> CHO	No resists	No resists	Loss of color
acrylonitrile	C <sub>3</sub> H <sub>3</sub> N	No resists	No resists	Loss of color
aluminum	AlH <sub>24</sub> KO <sub>20</sub> S <sub>2</sub>	Loss of color	Loss of color	Loss of color
aniline	C <sub>6</sub> H <sub>5</sub> NH <sub>2</sub>	No resists	No resists	Loss of color
animal fat	---	Resists	Resists	Resists
atrazine	C <sub>8</sub> H <sub>14</sub> ClN <sub>5</sub>	No resists	No resists	Loss of color
coal (low sulfur)	C	Resists	Resists	Resists
coal (high sulfur)	C	Resists	Resists	Resists
cyclohexylamine	C <sub>6</sub> H <sub>11</sub> NH <sub>2</sub>	No resists	No resists	Loss of color
dextrose	C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>	Resists	Resists	Resists
dibutyl maleate	C <sub>24</sub> H <sub>38</sub> O <sub>4</sub>	Loss of color	Loss of color	Loss of color
dibutyl phthalate	C <sub>12</sub> H <sub>20</sub> O <sub>4</sub>	No resists	No resists	Loss of color
dibutyl phthalate	C <sub>16</sub> H <sub>22</sub> O <sub>4</sub>	No resists	No resists	Loss of color
diethylene glycol butyl ether	C <sub>8</sub> H <sub>18</sub> O <sub>3</sub>	No resists	No resists	Loss of color
dimethylformamide	C <sub>3</sub> H <sub>7</sub> NO	No resists	No resists	Loss of color

butyl ether, ethylene glycol	C <sub>6</sub> H <sub>14</sub> O <sub>2</sub>	Loss of color	Loss of color	Loss of color
formaldehyde	CH <sub>2</sub> O	No resists	No resists	Loss of color
fructose	C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>	Resists	Resists	Resists
hydroquinone	C <sub>6</sub> H <sub>4</sub> (OH) <sub>2</sub>	No resists	No resists	Loss of color
kaolin (China clay)	---	Resists	Resists	Resists
methyl acrylate	C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	No resists	No resists	Loss of color
meth acrylonitrile	C <sub>4</sub> H <sub>5</sub> N	No resists	No resists	Loss of color
methyl methacrylate	C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	No resists	No resists	Loss of color
mono ethanolamine	C <sub>2</sub> H <sub>7</sub> NO	No resists	No resists	Loss of color
ozone <2 ppm	O <sub>3</sub>	No resists	No resists	Loss of color
polypropylene (dry)	C <sub>3</sub> H <sub>6</sub>	Resists	Resists	Resists
polystyrene (dry)	C <sub>8</sub> H <sub>8</sub>	Resists	Resists	Resists
polytetrafluoroethylene (dry)	(C <sub>2</sub> F <sub>4</sub> ) <sub>n</sub>	Resists	Resists	Resists
polyvinyl chloride (dry)	C <sub>2</sub> H <sub>3</sub> Cl	Resists	Resists	Resists
potash	CK <sub>2</sub> O <sub>3</sub>	Resists	Resists	Resists
pulp liquor	---	Loss of color	Loss of color	Loss of color
quaternary amines	---	No resists	No resists	Loss of color
silage	---	Resists	Resists	Resists
silicone fluids	---	Resists	Resists	Resists
sugar (saturated)	---	Resists	Resists	Resists
sugar syrup	C <sub>12</sub> H <sub>22</sub> O <sub>11</sub>	Resists	Resists	Resists
toluidine	---	No resists	No resists	Loss of color
triethyl phosphate	C <sub>6</sub> H <sub>15</sub> O <sub>4</sub> P	No resists	No resists	Loss of color
triethanolamine	C <sub>6</sub> H <sub>15</sub> NO <sub>3</sub>	No resists	No resists	Loss of color
urea	CH <sub>4</sub> N <sub>2</sub> O	Loss of color	Resists	Resists

## LEGAL NOTES:

These results and information are based on laboratory tests and practical experience, however, due to multiple parameters beyond our control during the application, the data can never be used to prove any responsibility of TECNOPOL SISTEMAS S.L.U. These test results are reported to serve as a guide to the applicability of the above-described products in a variety of applications. It's the responsibility of each supplier and end user to assess the suitability of polyurea for specific applications. We reserve the right to change the system specifications without notice. The information in these values is based on our current knowledge and must be considered as general guidelines only. Higher service and liquid temperatures, length of exposure time, and other factors can influence the performance of these membranes. The product has not to be used for purposes other than those specified. The information contained in these pages should not be considered as a warranty of its properties so no liability for their use, or inability to use, is accepted by TECNOPOL SISTEMAS S.L.U. In all cases, it is the responsibility of the user to determine the applicability of such information and recommendations and the suitability of any product for its particular purpose. The manufacturer's sole responsibility for claims arising out of breach of warranty, negligence, strict liability, or otherwise, is limited to the purchase price and/or replacement of the materials supplied. Contact our representative for further information.