

## Resistance to chemicals of DYFLOR® 2000 (PVDF Polyvinylidene fluoride)

- 0 = No noticeable attack
- 1 = Slight effect without substantial limitation of applicability
- 2 = Noticeable effect conditionally applicable depending on individual requirements
- x = Strong attack to material.  
Application not recommended

The tables on resistance to chemicals base strictly on the Technical Information «DYFLOR® 2000» of Hüls.  
The data in this publication cannot be used as a basis for any claims against us.

Further information see chapter PVDF.

Chemicals	Temperature						Chemicals	Temperature						Chemicals	Temperature					
	20°C	50°C	70°C	100°C	110°C	120°C		20°C	50°C	70°C	100°C	110°C	120°C		20°C	50°C	70°C	100°C	110°C	120°C
Acetaldehyde	2						Borax	0	0	0	0	0	0	Copper fluoride	0	0	0	0	0	0
Acetanhydride	2	2	x				Boric acid	0	0	0	0	0	0	Copper nitrate	0	0	0	0	0	0
Acetic acid (50%)	0	0	0	0	0		Bromic acid	0	0	0	0	0	0	Copper sulphate	0	0	0	0	0	0
Acetic acid (80%)	0	0	0	0	0		Bromine, dry	0	0	0				Corn oil	0	0	0	0	0	0
Acetic acid (100%)	0	0	1	2	x		Butadiene	0	0	0	0			Crotonaldehyde	0	0	1	2		
Acetone	2	2					n-Butanol	0	0	0	0	0	0	Crude oil	0	0	0	0	0	0
Acetone (50% water)	1	1	2				sec-Butanol	0	0	0	0	0	0	Mineral oil	0	0	0	0	0	0
Acetone nitrile	0	0	1				tert-Butanol	0	0	0	0	0	0	Cyclohexane	0	0	0	0	0	0
Acetophenone	0	1	2	x			Butene	0	0	0	0	0	0	Cyclohexanol	0	0	0	1		
Acetyl acetone	2			x			Butyl acrylate	0	1	2	x			Cyclohexanone	0	2	2	x		
Acetyl chloride	2	2					Butyl acetate	0	1	2	x									
Acryl nitrile	0	1					n-Butyl amine	2	x					Dextrine	0	0	0	0	0	0
Adipic acid, diluted	0	0	0				sec-Butyl amine	2	x					Diacetone alcohol	0	1	2	x		
Allyl chloride	0	0	0	0			tert-Butyl amine	0	1	1	2			o-Dichlorobenzene						
Aluminium chloride	0	0	0	0	0	0	n-Butyl bromide	0	0	0	0	0	0	Dichlorodifluoromethane	0	0	0	0		
Aluminium chloride (50%)	0	0	0				n-Butyl chloride	0	0	0	0	0	0	Diesel fuel	0	0	0	0	0	0
Aluminium fluoride	0	0	0	0	0	0	Butyl glycol	0	0	0	0	0	0	Diethylamine	0	2	2			
Aluminium fluoride (50%)	0	0	0				n-Butyl mercaptane	0	0	0	0	0	0	Diethylenetriamine	0	0	1	2		
Aluminium hydroxide	0	0	0	0	0	0	Butyl phenol	0	0	0	0			Diethyl ether	0	1				
Aluminium nitrate	0	0	0	0	0	0	Butyric acid	0	0	0	0	0		Diglycolic acid	0					
Aluminium nitrate (50%)	0	0	0				y-Butyrol actone			x				Diisobutyl ketone	0	0	0	0		
Aluminium potassium sulphate	0	0	0	0	0	0								Diisopropyl ether	0	0				
Aluminium sulphate	0	0	0				Calcium carbonate	0	0	0	0	0	0	N,N-Dimethyl acetamide			x			
Ammonia (30%)	0	0	0	0			Calcium chlorate	0	0	0	0	0	0	Dimethyl amine	2	2	2	2		
Ammonia, anhydrous	0	0	0	0	0	0	Calcium chloride	0	0	0	0	0	0	Dimethyl aniline	0	1	2	2	x	
Ammonium aluminium sulphate	0	0	0	0	0	0	Calcium disulphate	0	0	0	0	0	0	Dimethyl formamide			x			
Ammonium carbonate	0	0	0	0	0	0	Calcium hydrogen sulphite	0	0	0	0	0	0	Dimethyl phthalate	0	1	2	x		
Ammonium chloride	0	0	0	0	0	0	Calcium hydroxide	0	0	0	0	0	0	1,4-Dioxane	2	2	x			
Ammonium chloride (50%)	0	0	0	0	0	0	Calcium hypochlorite	0	0	0	0	0	0	Epichlorohydrine	2	x				
Ammonium fluoride	0	0	0	0	0	0	Calcium nitrate	0	0	0	0	0	0	Ethyl acetate	0	1	2	x		
Ammonium fluoride (20%)	0	0	0	0	0	0	Calcium nitrate (50%)	0	0	0	0	0	0	Ethyl acrylate	0	1	2	x		
Ammonium hydroxide	0	0	0	0	0	0	Calcium sulphate	0	0	0	0	0	0	Ethyl alcohol	0	0	0	0	0	0
Ammonium nitrate	0	0	0	0	0	0	Capric acid	0	0	0				Ethyl chloride	0	0	0	0	0	0
Ammonium nitrate (50%)	0	0	0	0	0	0	Caprylic acid	0	0	0	1			Ethylene bromide						
Ammonium phosphate	0	0	0	0	0	0	Carbon dioxide, wet	0	0	0	0	0	0	(1,2-Dibromoethane)	0	0	0	0	0	0
Ammonium phosphate (50%)	0	0	0	0	0	0	Carbon dioxide, anhydrous	0	0	0	0	0	0	Ethylene chloride						
Ammonium sulphate	0	0	0	0	0	0	Carbon disulphide	0						(1,2-Dichloroethane)	0	0	0	0	0	0
Ammonium sulphate (50%)	0	0	0	0	0	0	Carbon tetrachloride	0	0	0	0	0	0	Ethylene chlorohydrine	0	1	2	x		
Ammonium sulphide	0	0	0	0	0	0	Caustic soda (10%)	0	0	0	0			Ethylene diamine	2	x				
Amyl acetate	0	0	1	2	x		Caustic soda (30%)	0	0	0	0			Ethylene glycol	0	0	0	0	0	0
Amyl alcohol	0	0	0	0	0	0	Caustic soda (50%)	0	0	0	2			Ethylene oxide	0	0				
Amyl chloride	0	0	0	0	0	0	Chloric acid gas	0	0	0	0	0	0	Fats (triglycerides of long or medium chain fatty acids)	0	0	0	0		
Amyl chloride (50%)	0	0	0	0	0	0	Chlorine (5% in CCl4)	0	0	0	0			Fatty acids (long chain)	0	0	0	0	0	0
Aniline	0	1	1	2			Chlorine dioxide (15%)	0	0	0				Fatty acids (medium chain)	0	0	0			
Antimonous chloride	0						Chlorine, wet	0	0	0	0			Ferrous chloride	0	0	0	0	0	0
Aqua regia	0	0	0				Chlorine, dry	0	0	0	0			Ferrous chloride (50%)	0	0	0	0	0	0
Arsenic acid	0	0	0	0	0	0	(Mono)chloroacetic acid (50%)	0	0	0	0			Ferrous nitrate	0	0	0	0	0	0
							(Mono)chloroacetic acid (100%)	0	0	0	0			Ferric nitrate	0	0	0	0	0	0
Barium carbonate	0	0	0	0	0	0	Chlorobenzene	0	0	0	1			Ferric sulphate	0	0	0	0	0	0
Barium chloride	0	0	0	0	0	0	Chlorodifluoromethane	0	0	0	0			Ferric sulphate (50%)	0	0	0	0		
Barium hydroxide	0	0	0	0	0	0	Chloroform	0	0	0	0			Fluorine	0					
Barium sulphide	0	0	0	0	0	0	Chlorosulfonic acid	2	x					Formaldehyde						
Benzaldehyde	1	1	2				Chromic acid (50%)	0	0	1				(37%, Formalin®)	0	0				
Benzene	0	1	1				Chromyl chloride	0	0					Formic acid	0	0	0	0	0	0
Benzene-sulphonic acid	0	2					Citric acid	0	0	0	0	0	0	Furane	2	x				
Benzoic acid	0	0	0	0	0	0	Citric acid (50%)	0	0	0	0	0	0	Furfural	1	2	2	x		
Benzoic methyl ester			x				Coconut oil	0	0	0	0	0	0							
Benzyl alcohol	0	0	0	0	0	0	Coke oven gas	0	0	0	0									
Benzyl chloride	0	1	1	2	2	2	Copper chloride	0	0	0	0	0	0							
							Copper cyanide	0	0	0	0	0	0							

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	20°C	50°C	70°C	100°C	110°C	120°C		20°C	50°C	70°C	100°C	110°C	120°C		20°C	50°C	70°C	100°C	110°C	120°C						
Fuel oil (EL)	0	0	0	0			Monoethanol amine	2	x											Sodium bisulphate (Sodium hydrogen sulphate)	0	0	0	0	0	0
Gallic acid	0	1					Morpholine	1	2	x										Sodium bisulphite (Sodium hydrogen sulphite)	0	0	0	0	0	0
Gear oil ARAL Energol HL 32	0	0					Naphtha	0	0	0	0	0	0							Sodium bromide	0	0	0	0	0	0
Gear oil ARAL Montanol	0	0					Naphthaline	0	0	0	1									Sodium carbonate	0	0	0	0	0	0
GM 220	0	0	0				Natriumbisulfat (Natriumhydrogensulfat)	0	0	0	0	0	0							Sodium carbonate (40%)	0	0	0			
Gear oil BP Energol H-PC 220	0	0	0				Natural gas	0	0	0	0	0	0							Sodium chlorate	0	0	0	0	0	0
Gear oil Shell Tellus Oil 32	0	0	0				Niacin (nicotinic acid)	0	0	0	0	0	0							Sodium chloride	0	0	0	0	0	0
Gear oil Shell Tonna Oil T 220	0	0	0				Nickel chloride	0	0	0	0	0	0							Sodium cyanide	0	0	0	0	0	0
Seite 3.26							Nickel nitrate	0	0	0	0	0	0							Sodium fluoride	0	0	0	0	0	0
Glucose	0	0	0	0	0	0	Nickel sulphate	0	0	0	0	0	0							Sodium hypochlorite	0	0	0	0	0	0
Glycerol	0	0	0	0	0	0	Nicotine	0	1	1										Sodium nitrate	0	0	0	0	0	0
1,2-Glycol	0	0	0	0	0	0	Nitrating acid	0	0	1										Sodium nitrite	0	0	0	0	0	0
Glycolic acid (hydroxyacetic acid)	0	1	2	x			Nitric acid (15%)	0	0	0	0									Sodium peroxide	0	0	0	0	0	0
Heptane	0	0	0	0	0	0	Nitric acid (30%)	0	0	0	0									Sodium phosphate	0	0	0	0	0	0
Hexamethyldisilazane (HMDS)	0						Nitric acid (65%)	0	0	0										Sodium silicate	0	0	0	0	0	0
Hexane	0	0	0	0	0	0	Nitric acid (fuming)	1	1											Sodium sulphate	0	0	0	0	0	0
Hydrazine UDMH 50/50	0	1					Nitrobenzene	0	1	2										Sodium sulphide	0	0	0	0	0	0
Hydriodic acid (48% +12% J2)	0	0	0	0	0	0	Nitrogen dioxide	0	0	0	0									Sodium sulphite	0	0	0	0	0	0
Hydrobromic acid	0	0	0	0	0	0	Nitromethane	1	2											Sodium thiosulphate	0	0	0	0	0	0
Hydrochloric acid (20%)	0	0	0	0	0	0	Nitrous acid	0	0	0	0									Stearic acid	0	0	0	0	0	0
Hydrochloric acid (conc.)	0	0	0	0	0	0	Octane	0	0	0	0	0	0							Sulphur	0	0	0	0	0	0
Hydrogen	0	0	0	0	0	0	Octene	0	0	0	0	0	0							Sulphur chloride	0					
Hydrogen bromide	0	0	0	0	0	0	Oil (triglyceride)	0	0	0	0									Sulphur dichloride	0					
Hydrogen cyanide	0	0	0	0	0	0	Oleic acid	0	0	0	0	0	0							Sulphur dioxide	0	0	0	0		
Hydrogen fluoride (35%)	0	0	0	0	0	0	Oleum	x												Sulphuric acid (50%)	0	0	0	0	0	0
Hydrogen fluoride (70%)	0	0	0	0	0	0	Oxalic acid	0	0	1	2									Sulphuric acid (60%)	0	0	0	0		
Hydrogen fluoride (100%)	0	0	0	0	0	0	Oxygen	0	0	0	0	0	0							Sulphuric acid (80%)	0	0	0	0	0	1
Hydrogen peroxide (30%)	0	0	0	0	0	0	Ozone	0	0	0	0	0	0							Sulphuric acid (95%)	0	0	1	2		
Hydrogen peroxide (90%)	0						Palmitic o. hexadecyclic acid	0	0	0	0	0	0							Sulphuric acid (fuming / monohydrate)	2	x				
Hydrogen phosphide	0	0					Paraldehyde	0	0	0										Sulphur trioxide	2	x				
Hydrogen sulphide, wet	0	0	0	0	0	0	Perchloroethylene	0	0	0	0	0	0							Sulphurous acid	0	0	0	0		
Hydrogen sulphide, anhydrous	0	0	0	0	0	0	Perchloric acid (10%)	0	0	0	0									Synthesis gas	0	0	0	0	0	0
Hypochlorous acid	0	0	0	0	0	0	Perchloric acid (72%)	0	0											Tall oil o. liquid rosin	0	0	0	0	0	0
Iodine, dry	0	0	0				Petrol (leaded)	0	0	0	0	0	0							Tetrachloroethylene	0	0	0	1		
Iodine, wet	0	0	0				Petrol (Gasoline) (non-leaded)	0	0	0	0	0	0							Tetrahydrofurane	1	2				
Iodoform	0	0	0	0			Phenol (10%)	0	0	0	0									Tetramethyl ammonium hydroxide (50%)	0	0	0	0		
Isooctane	0	0	0	0	0	0	Phenol (100%)	0	0	0	1									Thionyl chloride	0	1				
Jet propulsion fuel IP4 and IP5	0	0	0	0			Phenylhydrazine	0	0											Titanium tetrachloride	0	0				
Kerosine	0	0	0	0	0	0	Phosphorous pentoxide	0	0	0	0									Toluol (toluene)	0	0	0	1		
Lactic acid	0	1	2	x			Phosphoric acid (30%)	0	0	0	0	0	0							Tributyl phosphate	0	0	0	0		
Lauric acid	0	0	0	0			Phosphoric acid (85%)	0	0	0	0	0	0							Trichloroacetic acid	0	1	2	x		
Lauryl chloride	0	0	0	0			Phosphorous chloride	0	0	0	0									1,1,1-Trichloroethane	0	0	1			
Lead acetate	0	0	0	0	0	0	Phthalic acid	0	0	0	0									Trichloroethylene	0	0	0	0	0	0
Lead tetraethyl	0	0	0	0	0	0	Picric acid	0												Trichlorofluoromethane	0	0	0	0		
Linseed oil	0	0	0	0	0	0	Potassium bromide	0	0	0	0	0	0							Triethyl amine	0	0	1	2		
Linoleic acid	0	0	0	0	0	0	Potassium carbonate	0	0	0	0	0	0							Urea (50%)	0	0	0	0	0	0
Magnesium carbonate	0	0	0	0	0	0	Potassium chlorate	0	0	0	0	0	0							Vinyl acetate	0	0	0	0	0	0
Magnesium chloride	0	0	0	0	0	0	Potassium chloride	0	0	0	0	0	0							Water	0	0	0	0	0	0
Magnesium hydroxide	0	0	0	0	0	0	Potassium cyanide	0	0	0	0	0	0							Xylol (xylene)	0	0	0	0		
Magnesium nitrate	0	0	0	0	0	0	Potassium dichromate	0	0	0	0	0	0							Zinc chloride	0	0	0	0	0	0
Magnesium sulphate	0	0	0	0	0	0	Potassium ferrocyanide	0	0	0	0	0	0							Zinc chloride (50%)	0	0	0	0	0	0
Maleic acid	0	0	0	0	0	0	Potassium hydroxide	0	0	0	0									Zinc nitrate	0	0	0	0	0	0
Mercury	0	0	0	0	0	0	Potassium nitrate	0	0	0	0	0	0							Zinc nitrate (50%)	0	0	0	0	0	0
Mercuric chloride	0	0	0	0	0	0	Potassium permanganate	0	0	0	0	0	0							Zinc sulphate	0	0	0	0	0	0
Mercuric cyanide	0	0	0	0	0	0	Potassium sulphate	0	0	0	0	0	0							Zinc sulphate (50%)	0	0	0	0	0	0
Mercuric nitrate	0	0	0	0	0	0	Potassium sulphide	0	0	0	0	0	0													
Methane	0	0	0	0	0	0	Propane	0	0	0	0	0	0													
Methane sulfonic acid (50%)	0	0	0	0			Propanol	0	0	1	2															
Methyl alcohol	0	0	0	0	0	0	Propylene carbonate				x															
Methyl bromide	0	0	0	0	0	0	Propylene oxide					2														
Methyl chloride	0	0	0	0	0	0	Pyridine	2	2	x																
Methylene chloride	1	1					Pyrogallic acid	0	0																	
Methyl ethyl ketone	2	2	2	x			Salicylic acid	0	0	0	0															
Methyl isobutyl ketone	0	1	2	x			Sea water	0	0	0	0	0	0													
N-Methylpyrrolidone			x				Silicon tetrachloride	0																		
Milk	0	0	0	0			Silver cyanide	0	0	0	0	0	0													
Mineral oil	0	0	0	0	0	0	Silver nitrate	0	0	0	0	0	0													
							Sodium acetate	0	0	0	0	0	0													
							Sodium benzoate	0	0	0	0	0	0													
							Sodium bicarbonate	0	0	0	0	0	0													
							(Sodium nitrogen carbonate)	0	0	0	0	0	0													