

siegling transilon

conveyor and processing belts

Chemical resistance properties of various Siegling Transilon coating materials

The data are based on laboratory tests and practical experience and apply to standard 20/65 ambient conditions (= 20°C/ 68°F and 65 % relative humidity).

Substantial deviations from the standard ambient conditions may cause changes in the chemical resistance of the individual coatings, e.g. interaction of moisture and heat. Please enquire.

We recommend testing chemical resistance under your operating conditions using the actual media in contact with the belt. We will be pleased to supply appropriate samples on request.

Resistance data on Novo types and polyamide coatings as well as uncoated types on request.

For ease of use, conventional definitions and generally accepted names and designations, subdivided into four individual sectors, i.e.

- chemicals
- chemical products
- pharmaceuticals, cosmetics
- food products

have been employed.

Content

Chemical resistance chart of Siegling Transilon coatings

Chemicals	2
Chemical products	6
Pharmaceuticals, cosmetics	8
Food products	9

Coating materials	Symbol	=	Siegling Transilon coating
	V	=	PVC
	V-FDA	=	PVC approved for foodstuffs
	VH	=	Hard PVC
	U	=	Urethane
	U0	=	Urethane impregnated
	UH, U2H	=	Hard urethane
	A	=	Polyolefin
	G	=	Elastomer
	S	=	Silicone
	E	=	Polyester

Symbols		=	
	●	=	Good resistance
	○	=	Limited resistance; slight weight and dimensional changes after a certain period of time, possible brittleness
	–	=	No resistance

Chemicals

V	V-FDA	VH	U0 UH	U	U2H	A	G ¹	G ²	S	E	
○	○	○	—	—	—	○	—	●	●	●	Acetic acid (glacial acetic acid)
●	●	○	○	○	●	●	○	●	●	○	Acetic acid 10 %
—	—	—	○	○	—	●	—	●	●	●	Acetic anhydride
—	—	—	—	—	—	●	—	●	●	○	Acetone
●	●	●	●	●	●	●	●	●	●	●	Aluminium salts
●	●	●	●	●	●	●	●	●	●	●	Alum
●	●	●	○	○	●	●	○	●	●	○	Ammonia, aqueous
●	●	●	●	●	●	●	○	●	○	●	Ammonia, gaseous
●	●	●	●	●	●	●	●	●	●	●	Ammonium acetate
●	●	●	●	●	●	●	●	●	●	●	Ammonium carbonate
●	●	●	●	●	●	●	●	●	●	●	Ammonium chloride
●	●	●	●	●	●	●	●	●	●	●	Ammonium nitrate
●	●	●	●	●	●	●	●	●	●	●	Ammonium phosphate
●	●	●	●	●	●	●	●	●	●	●	Ammonium sulphate
—	—	—	—	●	●	○	●	●	○	●	Amyl alcohol
○	○	—	—	○	—	○	—	●	○	—	Aniline
●	●	●	●	●	●	●	●	●	●	●	Barium salts
—	—	—	—	—	—	○	—	●	—	—	Benzaldehyde
○	●	—	●	●	●	○	○	—	○	●	Benzene (see also Motor fuels)
●	●	●	●	●	●	●	●	●	●	●	Benzoic acid
—	—	—	—	○	○	○	—	—	—	○	Benzol
●	●	●	●	●	●	●	●	●	●	●	Boric acid
●	●	●	●	●	●	●	●	●	●	●	Boric acid, solution
—	—	—	—	—	—	—	—	—	—	—	Bromine
○	○	—	—	—	○	○	—	○	●	—	Bromine water
●	●	—	●	●	●	○	●	—	●	●	Butane, gaseous
●	●	—	●	●	●	○	●	—	●	●	Butane, liquid
—	—	—	—	—	—	○	—	●	—	○	Butyl acetate
○	○	○	—	●	●	●	○	●	●	●	n-Butyl alcohol
●	●	●	●	●	●	●	●	●	●	●	Calcium chloride
●	●	●	●	●	●	●	●	●	●	●	Calcium nitrate
●	●	●	●	●	●	●	●	●	●	●	Calcium sulphate
—	—	—	—	—	—	—	—	—	○	—	Carbon disulphide
—	—	—	○	○	○	—	—	—	—	—	Carbon tetrachloride
—	—	—	—	—	—	—	—	—	—	—	Chlorine, liquid
—	—	—	—	—	—	—	—	○	—	—	Chlorine, gaseous, dry
—	—	—	—	—	—	—	—	○	—	—	Chlorine, gaseous, wet
●	●	○	—	—	○	●	—	○	○	—	Chlorine water
—	—	—	—	—	—	—	—	—	—	—	Chlorobenzene
—	—	—	—	—	—	—	—	—	—	—	Chloroform
—	—	—	—	—	—	—	—	—	—	—	Chlorosulphonic acid
—	—	—	—	—	—	—	—	—	—	—	Chromic acid
●	●	●	●	●	●	●	○	●	●	●	Chromium salts
●	●	●	●	●	●	●	●	●	●	●	Chromium trioxide
●	●	●	—	—	—	●	●	●	●	●	Citric acid
●	●	●	●	●	○	●	●	●	●	●	Copper salts
○	○	○	○	○	○	○	—	—	○	—	Cresols
○	○	○	—	○	○	○	○	○	○	○	Cresols, aqueous
—	—	—	—	—	—	○	●	—	—	●	Cyclohexane
—	—	—	—	—	—	○	●	—	—	—	Cyclohexanol
—	—	—	—	—	—	○	—	—	—	—	Cyclohexanone
—	—	—	—	—	—	—	●	—	—	—	Decahydronaphthalene
—	—	—	○	○	—	○	—	●	●	—	Dibutyl phthalate

¹⁾ NBR = acrylonitrile-butadiene rubber
²⁾ EPDM = ethylene-propylene terpolymer



V	V-FDA	VH	U0 UH	U	U2H	A	G ¹	G ²	S	E	
—	—	—	—	—	—	—	—	—	—	—	Diethyl ether
—	—	—	—	—	—	—	—	●	○	—	Dimethyl formamide
—	—	—	—	—	—	—	—	—	○	—	1,4 Dioxan
—	—	—	—	—	—	—	—	—	—	—	Ether
—	—	—	—	—	—	●	—	●	—	○	Ethyl acetate
○	○	○	—	●	●	●	○	●	○	●	Ethyl alcohol, non-denatured 100%
○	○	○	—	●	●	●	○	●	○	●	Ethyl alcohol, non-denatured 96%
○	○	○	○	●	●	●	●	●	○	●	Ethyl alcohol, non-denatured 50%
○	○	○	○	●	●	●	●	●	●	●	Ethyl alcohol, non-denatured 10%
—	—	—	—	—	—	○	—	—	—	—	Ethyl benzene
—	—	—	—	—	—	—	—	—	—	—	Ethyl chloride
—	—	—	—	—	—	—	—	—	—	—	Ethylene chloride
○	○	○	○	●	●	○	●	●	●	●	2-Ethyl hexanol
○	○	—	●	●	●	○	●	●	●	○	Formaldehyde
●	●	●	—	—	○	●	—	●	●	○	Formic acid, dilute
●	●	●	●	●	●	●	○	●	●	●	Glycerine
●	●	●	●	●	●	●	○	●	●	●	Glycerine, aqueous
○	●	○	●	●	●	●	○	●	●	●	Glycol
●	●	●	●	●	●	●	○	●	●	●	Glycol, aqueous
○	●	—	●	●	●	○	○	—	○	●	Heptane
○	●	—	●	●	●	○	○	—	○	●	Hexane
●	●	○	○	○	●	○	—	●	—	○	Hydrochloric acid, conc.
●	●	○	○	○	●	●	○	●	●	●	Hydrochloric acid 10%
—	—	—	—	—	—	—	—	○	—	—	Hydrofluoric acid 40%
●	●	○	○	○	●	●	—	●	○	○	Hydrogen chloride, gaseous, dilute
○	○	—	—	○	○	○	—	●	○	—	Hydrogen chloride, gaseous, conc.
●	●	○	○	○	●	●	—	○	●	○	Hydrogen peroxide 10%
○	○	○	○	○	○	●	—	●	○	○	Hydrogen sulphide
●	●	●	●	●	●	●	●	●	●	●	Iron salts (sulphate)
○	●	—	●	●	●	○	●	—	○	●	Isooctane
○	○	○	—	●	●	●	○	●	●	●	Isopropyl alcohol
○	●	—	○	●	●	●	●	●	●	●	Lactic acid
●	●	●	●	●	●	●	●	●	●	●	Magnesium salts
●	●	●	●	●	●	●	●	●	●	●	Mercury
●	●	●	●	●	●	●	●	●	●	●	Mercury salts
○	●	●	—	○	●	●	●	○	●	●	Methyl alcohol, aqueous 50%
○	●	○	—	●	●	●	○	●	●	●	Methyl alcohol (methanol)
—	—	—	—	—	—	○	—	○	●	○	Methyl ethyl ketone
—	—	—	—	—	—	—	—	—	—	—	Methylene chloride
—	—	—	○	○	—	○	○	—	—	○	Naphthalene
●	●	●	●	●	●	●	●	●	●	●	Nickel salts
○	○	○	○	—	—	○	—	—	—	—	Nitric acid
—	—	—	—	—	—	—	—	—	●	○	Nitrobenzene
○	●	—	●	●	●	○	●	—	—	●	Octane (see also isooctane)
○	●	—	●	●	●	●	○	—	—	●	Oleic acid
●	●	●	●	●	●	●	○	●	●	●	Oxalic acid
○	○	○	●	●	○	○	○	●	○	●	Ozone

¹⁾ NBR = acrylonitrile-butadiene rubber
²⁾ EPDM = ethylene-propylene terpolymer

Chemicals

V	V-FDA	VH	U0 UH	U	U2H	A	G ¹	G ²	S	E	
—	—	—	—	—	—	—	—	—	—	—	Perchloroethylene
○	○	—	○	○	○	○	—	○	●	—	Phenol
○	○	—	○	—	○	○	○	○	●	—	Phenol, aqueous
●	●	●	—	—	●	●	—	○	●	○	Phosphoric acid 85 %
●	●	●	●	●	●	●	—	●	●	●	Phosphoric acid 50 %
●	●	●	●	●	●	●	○	●	●	●	Phosphoric acid 10 %
●	●	●	●	●	●	●	—	○	●	●	Phosphorus pentoxide
●	●	—	—	—	—	○	—	●	—	○	Potash lye 50 %
●	●	—	—	—	—	●	○	●	—	●	Potash lye 25 %
●	●	—	—	—	—	●	○	●	○	●	Potash lye 10 %
●	●	●	●	●	●	●	●	●	●	●	Potassium carbonate (potash)
●	●	●	●	●	●	●	—	●	●	●	Potassium chlorate
●	●	●	●	●	●	●	●	●	●	●	Potassium chloride
●	●	●	●	●	●	●	○	●	●	●	Potassium dichromate
●	●	●	●	●	●	●	●	●	●	●	Potassium iodide
●	●	●	●	●	●	●	●	●	●	●	Potassium nitrate
●	●	●	●	●	●	●	—	●	●	●	Potassium permanganate
●	●	●	●	●	●	●	—	●	●	●	Potassium persulphate
●	●	●	●	●	●	●	●	●	●	●	Potassium sulphate
●	●	○	●	●	●	●	●	—	●	●	Propane, gaseous
●	●	○	●	●	●	●	●	—	●	●	Propane, liquid
—	—	—	—	—	—	○	—	○	○	—	Pyridine
●	●	●	●	●	●	●	○	●	●	●	Silver salts
●	●	—	—	—	—	○	—	●	—	—	Soda lye 50 % (see potash lye)
●	●	—	—	—	—	○	○	●	—	○	Soda lye 25 %
●	●	—	○	—	—	●	○	●	○	●	Soda lye 10 %
●	●	●	●	●	●	●	●	●	●	●	Sodium bisulphite
●	●	●	●	●	●	●	●	●	●	●	Sodium carbonate (natron)
●	●	●	●	●	●	●	●	●	●	●	Sodium carbonate (soda)
●	●	●	●	●	●	●	○	●	●	●	Sodium chlorate
●	●	●	●	●	●	●	●	●	●	●	Sodium chloride (common salt)
●	●	●	—	—	—	○	○	●	—	●	Sodium hydroxide (caustic soda)
●	●	●	●	●	●	●	—	○	●	○	Sodium hypochlorite
●	●	●	●	●	●	●	●	●	●	●	Sodium nitrate
●	●	●	●	●	●	●	●	●	●	●	Sodium nitrite
●	●	●	●	●	●	●	○	●	●	●	Sodium perborate
●	●	●	●	●	●	●	●	●	●	●	Sodium phosphate
●	●	●	●	●	●	●	●	●	●	●	Sodium sulphate (Glauber salt)
●	●	●	●	●	●	●	●	●	●	●	Sodium sulphide
●	●	●	●	●	●	●	●	●	●	●	Sodium sulphite
●	●	●	●	●	●	●	●	●	●	●	Sodium thiosulphate (fixing salt)
●	●	●	●	●	●	●	●	●	●	●	Stearic acid
●	●	●	●	●	●	●	○	○	●	●	Succinic acid
○	●	—	○	○	—	○	—	●	○	○	Sulphur
—	—	—	—	—	—	—	—	—	—	—	Sulphur dioxide
—	—	—	—	—	—	—	—	—	—	—	Sulphuric acid 96 %
○	○	—	—	—	—	○	—	○	—	○	Sulphuric acid 50 %
○	○	○	○	—	○	○	—	●	○	●	Sulphuric acid 25 %
○	○	○	○	—	○	●	○	●	●	●	Sulphuric acid 10 %
●	●	●	●	●	●	●	●	●	●	●	Tartaric acids
—	—	—	—	—	—	—	—	—	—	—	Tetrachloroethane
—	—	—	—	—	—	—	—	—	—	—	Tetrachloroethylene (perchloroethylene)
—	—	—	—	—	—	—	—	—	—	—	Tetrahydrofuran
—	—	—	—	—	—	—	—	—	—	—	Tetrahydronaphthalene

¹⁾ NBR = acrylonitrile-butadiene rubber
²⁾ EPDM = ethylene-propylene terpolymer

V	V-FDA	VH	U0 UH	U	U2H	A	G ¹	G ²	S	E	
—	—	—	—	—	—	—	—	—	—	—	Thiophene
●	●	●	●	●	●	●	●	●	●	●	Tin II chlorides
—	—	—	—	—	—	—	—	—	—	—	Toluene
—	—	—	—	—	—	—	—	—	—	—	Trichloroethylene
●	●	●	●	●	●	●	○	●	●	●	Urea, aqueous
●	●	●	●	●	●	●	●	●	●	●	Water
—	—	—	—	—	—	—	—	—	—	○	Xylene
●	●	●	●	●	●	●	●	●	●	●	Zinc salts

¹) NBR = acrylonitrile-butadiene rubber
²) EPDM = ethylene-propylene terpolymer

Chemical products

V	V-FDA	VH	U0 UH	U	U2H	A	G ¹	G ²	S	E	
●	●	●	●	●	●	●	●	●	●	●	Alum
○	●	—	●	●	●	●	—	●	●	●	Anti-freeze*
—	—	—	—	—	—	—	—	—	—	—	Aqua regia
○	●	—	●	●	●	○	●	●	○	●	Asphalt
—	—	—	—	—	—	—	—	—	—	—	Battery acid
○	●	—	●	●	●	○	○	—	○	●	Benzine
●	●	●	●	●	○	●	—	○	●	●	Bleaching lye (12.5%)
○	●	—	●	●	●	●	●	—	—	●	Bone oil
●	●	●	●	●	●	○	●	●	●	●	Borax
○	○	—	—	●	○	○	—	●	●	●	Brake fluid* Bosch
—	—	—	—	—	—	—	—	—	○	—	Brake fluid* Skydrol
●	●	●	●	●	○	●	—	●	●	●	Chloride of lime (aqueous suspension)
—	—	—	—	—	—	—	—	○	—	—	Chlorine (active)
○	○	—	○	●	●	○	—	○	○	●	Chrome baths* (technical)
—	—	—	—	—	—	—	—	—	—	—	Chromosulphuric acid
○	○	○	○	○	—	○	○	○	—	—	Cresol solution
●	●	—	●	●	●	○	●	—	○	●	Diesel oil
●	●	●	●	●	●	●	●	●	●	●	Fertilizer salts
●	●	—	●	●	●	●	●	●	●	●	Fixing salt
○	●	—	●	●	●	○	●	●	○	●	Floor wax
○	○	—	●	●	●	●	●	●	○	●	Formalin
●	●	—	●	●	●	○	●	—	○	●	Fuel oils*
○	●	—	●	●	●	●	●	○	○	●	Furniture polish*
●	●	●	●	●	●	●	●	●	●	●	Gypsum
●	●	●	●	●	●	●	●	●	●	●	Ink*
○	●	—	●	●	●	●	●	—	●	●	Linseed oil
—	—	—	—	—	—	—	—	—	—	—	Litex (styrene)
●	●	—	●	●	●	●	●	—	●	●	Mineral oils (non-aromatic)
—	—	—	—	○	○	○	○	—	○	○	Moth balls
●	●	—	●	●	●	○	●	—	○	●	Motor fuel: Diesel oil*
○	●	—	●	●	●	○	●	—	○	●	Petrol (gasoline) DIN51635
○	●	—	●	●	●	○	○	—	○	●	Petrol, regular
—	—	—	○	○	○	○	○	—	○	●	Petrol, super
●	●	—	●	●	●	○	●	—	●	●	Motor oils*
○	●	—	●	●	●	●	●	—	●	●	Oil no. 3 (ASTM)
—	—	—	—	—	—	—	—	—	—	—	Oleum
●	●	—	●	●	●	●	●	—	●	●	Paraffin
●	●	—	●	●	●	●	●	—	●	●	Paraffin oil
○	●	—	●	●	●	●	●	—	○	●	Petroleum
○	●	—	●	●	●	○	●	—	—	●	Petroleum ether
●	●	●	●	●	●	●	●	●	●	●	Photographic developer
—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	*Belt's resistance depends on chemical composition

1) NBR = acrylonitrile-butadiene rubber
2) EPDM = ethylene-propylene terpolymer

Food products

V	V-FDA	VH	U0 UH	U	U2H	A	G ¹	G ²	S	E	
●	●	●	●	●	●	●	●	●	●	●	Apple juice
●	●	●	●	●	●	●	●	●	●	●	Apple sauce
○	●	—	●	●	●	●	●	—	●	●	Beef tallow
●	●	●	●	●	●	●	●	●	●	●	Beer
●	●	●	●	●	●	●	●	●	●	●	Blancmange
○	○	○	○	●	●	●	●	●	○	●	Brandy
●	●	●	●	●	●	●	●	●	●	●	Bread
●	●	—	●	●	●	●	●	●	●	●	Butter
●	●	●	●	●	●	●	●	—	●	●	Buttermilk
●	●	○	●	●	●	●	●	●	●	●	Cabbage, pickled
●	●	—	●	●	●	●	●	●	●	●	Cake*
●	●	—	●	●	●	●	●	●	●	●	Cheese
●	●	●	●	●	●	●	●	●	●	●	Cinnamon, powder
●	●	●	●	●	●	●	●	●	●	●	Cinnamon, sticks
●	●	●	●	●	●	●	●	●	●	●	Citric acid
●	●	—	●	●	●	●	●	●	●	●	Cloves
●	●	—	●	●	●	●	●	●	●	●	Cocoa, ready to drink
○	●	—	●	●	●	●	●	●	●	●	Cocoa powder
○	●	—	●	●	●	●	○	—	●	●	Coconut oil
○	●	—	●	●	●	●	●	—	●	●	Cod liver oil
●	●	—	●	●	●	●	●	●	●	●	Coffee (beans or ground)
●	●	○	●	●	●	●	●	●	●	●	Coffee (ready to drink)
●	●	—	●	●	●	●	●	●	●	●	Cola concentrates
○	●	—	●	●	●	●	●	—	●	●	Cooking oil, animal
○	●	—	●	●	●	●	●	—	●	●	Cooking oil, vegetable
●	●	—	●	●	●	●	●	●	●	●	Corn (maize)
○	●	—	●	●	●	●	●	—	●	●	Corn oil
○	●	—	●	●	●	●	●	○	●	●	Cream, whipped cream
●	●	—	●	●	●	●	●	○	●	●	Curd cheese
●	●	●	●	●	●	●	●	●	●	●	Dairy products
●	●	●	●	●	●	●	●	●	●	●	Dextrose
●	●	●	●	●	●	●	●	●	●	●	Eggs (raw, boiled)
○	●	—	●	●	●	●	●	●	●	●	Fish
●	●	—	○	○	●	●	●	●	●	○	Fish (pickled in various sauces)*
●	●	—	●	●	●	●	●	●	●	●	Flour
●	●	●	●	●	●	●	●	●	●	●	Fruit juices
●	●	●	●	●	●	●	●	●	●	●	Fruit salad (fat-free)
●	●	●	●	●	●	●	●	●	●	●	Gelatine
●	●	○	●	●	●	●	●	●	●	●	Gin
●	●	—	●	●	●	●	●	●	●	●	Grain
●	●	●	●	●	●	●	●	●	●	●	Grapefruit juice
●	●	●	●	●	●	●	●	●	●	●	Grapes
●	●	●	●	●	●	●	●	●	●	●	Gravy
											*Belt's resistance depends on chemical composition

1) NBR = acrylonitrile-butadiene rubber
 2) EPDM = ethylene-propylene terpolymer



MOVEMENT SYSTEMS

Because our products are used in so many applications and because of the individual factors involved, our operating instructions, details and information on the suitability and use of the products are only general guidelines and do not absolve the ordering party from carrying out checks and tests themselves. When we provide technical support on the application, the ordering party bears the risk of the machinery functioning properly.

Forbo Siegling Service – anytime, anywhere

In the company group, Forbo Siegling employs more than 1900 people worldwide. Our production facilities are located in eight countries; you can find companies and agencies with stock and workshops in more than 50 countries. Forbo Siegling service centres provide qualified assistance at more than 300 locations throughout the world.

Forbo Siegling GmbH
Lilienthalstrasse 6/8, D-30179 Hannover
Phone +49 511 6704 0, Fax +49 511 6704 305
www.forbo-siegling.com, siegling@forbo.com

**Forbo Movement Systems is part of the Forbo Group,
a global leader in flooring, bonding and movement systems.**