Property Data

Envalior
Imagine the Future

Arnite® AV2 390 XL

PET–GF50

50% Glass Reinforced, Low Outgassing

Print Date: 2023–09–28

- not resistant
- limited resistant, tests necessary to verify
- resistant

Disclaimer Chemical Resistance
The chemical resistance data reported here are based on either measured weight/dimensional changes or degree of chemical attack determined from exposure in accordance with one of the relevant established international standards (ISO 175, ISO 11403–3, ISO 4599, ISO 4600, ISO 6252 etc.) or on the supplier´s experiences from successful applications of their products. Due to the application specific nature of the surrounding environment of each part during its service life, the indications provided should be used only for a first assessment; they are not intended to substitute for any testing you may need to conduct. You must make your own determination as to the suitability of this material for your specific application. Users shall in each case conduct evaluations under actual end–use conditions and/or consult with the resin supplier´s technical representatives.

Chemical Resistance

A	✓	Acetaldehyde (40% by mass) at 23°C
	✓	Acetic acid (10% by mass) at 23°C
	✗	Acetic acid (95% by mass) at 23°C
	✓	Acetone at 23°C
	✓	Acrylic acid at 23°C
	✓	Aliphatic amines at 23°C
	✓	Aliphatic hydrocarbons at 23°C
	✓	Alkylbenzenes at 23°C
	✓	Allyl alcohol at 23°C
	✓	Aluminium hydroxide (saturated) at 23°C
	✓	Aluminium salts of mineral acids (saturated) at 23°C
	i	Ammonia at 23°C
	✓	Ammonium salts of mineral acids (10% by mass) at 23°C

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	✓	Ammonium thiocyanate (saturated) at 23°C
	✗	Amyl acetate at 100°C
	✓	Amyl acetate at 23°C
	✓	Amyl alcohol at 23°C
	i	Aniline at 23°C
	i	Anodizing liquid (HNO3/H2SO4) at 23°C
	✗	Aqua Regia (HCl/HNO3) at 23°C
	i	Aromatic hydrocarbons at 23°C
B	✓	Bariumsalts of mineral acids at 23°C
	✓	Benzaldehyde at 23°C
	✓	Benzene at 23°C
	✗	Benzene at 80°C
	✓	Benzoic acid (20% by mass) at 23°C
	✓	Benzoic acid (saturated) at 23°C
	✗	Benzyl alcohol at 23°C
	✓	Beverages at 23°C
	✓	Bleaching agent (NaOCl) at 23°C
	✓	Boric acid (10% by mass) at 23°C
	✓	Butadiene at 23°C
	✓	Butane at 23°C
	✓	Butanediols at 23°C
	i	Butanols at 23°C
	✓	Butene–1 at 23°C
	✓	Butyl acetate at 23°C
	✓	Butyric acid (20% by mass) at 23°C
C	✓	Calcium chloride (saturated) at 23°C
	✓	Calcium hydroxide (saturated) at 23°C

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	i	Calcium hypochloride (saturated) at 23°C
	✗	Caprolactam (50% by mass) at >150°C
	✓	Carbon disulfide at 23°C
	✓	Carbon tetrachloride at 23°C
	✓	Casein at 23°C
	✗	Chloramines (10% by mass) at 23°C
	✗	Chlorine water at 23°C
	✗	Chloroacetic acid (10% by mass) at 23°C
	✓	Chlorobenzene at 23°C
	✗	Chlorobenzene at 50°C
	✓	Chlorodifluoroethane at 23°C
	✓	Chlorodifluoromethane at 23°C
	✗	Chloroform at 23°C
	✗	Chlorosulfonic acid (10% by mass) at 23°C
	i	Chromic acid (10% by mass) at 23°C
	✗	Chromyl chloride at 23°C
	✓	cis–2–butene at 23°C
	✓	Citric acid (10% by mass) at 23°C
	✓	Cobalt salt (20% by mass) at 23°C
	✗	Cresols at 23°C
	✓	Cycloalcohols (incl their esters) at 23°C
	✓	Cycloalkanes at 23°C
	i	Cycloalkanones at 23°C
D	i	Decalin at 23°C
	✓	Developer (photografic) at 23°C
	✓	Dibutyl phthalate at 23°C
	i	Dibutyl phthalate at 60°C

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	✗	Dichloroethylene at 23°C
	✓	Dichlorofluoromethane at 23°C
	✓	Dichlorotetrafluoroethane at 23°C
	✓	Diethyl ether at 23°C
	✓	Diethylene glycol at 23°C
	✓	Dimethyl ether at 23°C
	✓	Dimethylformamide at 23°C
	✓	Dioctyl phtalate at 23°C
	✓	Dioxan at 23°C
	✗	Dioxan at 60°C
	✗	Diphenyl ether at 80°C
	✗	Dipropyl ether at 23°C
E	✓	Edible fats waxes and oils at 100°C
	✓	Ethane at 23°C
	✓	Ethanol at 23°C
	i	Ethyl Acetate at 23°C
	✓	Ethylene at 23°C
	✗	Ethylene carbonate at 100°C
	✗	Ethylene carbonate at 50°C
	✗	Ethylene chlorohydrin at 23°C
	✗	Ethylene glycol at 100°C
	✓	Ethylene glycol at 23°C
	✓	Ethylene oxide at 23°C
F	✓	Fatty acids at 23°C
	✓	Fluorinated hydrocarbons at 70°C
	✗	Fluorine at 23°C

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	✓	Formaldehyde (30% by mass) at 23°C
	✓	Formamide at 23°C
	✓	Formic acid (10% by mass) at 23°C
	i	Formic acid (10% by mass) at 50°C
	✓	Fruit juices at 23°C
H	✓	Heptane at 23°C
	✗	Hexafluoroisopropanol at 23°C
	✓	Hexane at 23°C
	✓	Hydraulic fluids at 100°C
	✓	Hydrobromic acid (10% by mass) at 23°C
	✓	Hydrochloric acid (20% by mass) at 23°C
	✗	Hydrofluoric acid (40% by mass) at 23°C
	✓	Hydrogen at 23°C
	✓	Hydrogen peroxide (0.5% by mass) at 23°C
	✓	Hydrogen peroxide (3% by mass) at 23°C
	✓	Hydrogen peroxide (30% by mass) at 23°C
	✓	Hydrogen sulphide (10% by mass) at 23°C
	✓	Hydroquinone (5% by mass) at 23°C
I	i	Isopropanol at 23°C
K	✗	Ketones (aliphatic) at 23°C
L	✓	Lactic acid at 10°C
	✓	Linseed oil at 23°C
	✓	Lubricating oil (gear) at <130°C
	✓	Lubricating oil (hydraulics) at <130°C
	✓	Lubricating oil (transformers) at <130°C
M	✓	Magnesium salts (10% by mass) at 23°C
	✓	Mercury at 23°C

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	✓	Methanol at 23°C
	i	Methyl acetate at 23°C
	i	Methyl chloride at 23°C
	i	Methyl ethyl ketone at 23°C
	✗	Methylene chloride at 23°C
	✓	Methylpyrrolidone at 23°C
N	✓	n–Butyl glycol at 23°C
	✓	Naphtha at 23°C
	✓	Naphthalene at 23°C
	✓	Nitric acid (2% by mass) at 23°C
	✗	Nitric acid (conc.% by mass) at 23°C
	i	Nitrobenzene at 23°C
	✓	Nitrotoluene at 23°C
O	✓	Octane at 23°C
	✓	Octene at 23°C
	✓	Oil (Shell 10W40) at 23°C
	✓	Oil (transformers, switchgear) at 50°C
	✓	Oils (vegatable, mineral, ethereal) at 23°C
	✓	Oleic acid at 23°C
	✗	Oleum ($H_2SO_4+SO_3$) at 23°C
	✓	Oxalic acid (10% by mass) at 23°C
	i	Ozone at 23°C
P	✓	Palmatic acid at 80°C
	✓	Paraffin at 23°C
	✓	Petroleum at 23°C
	✓	Petroleum ether and solvents at 80°C

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	✗	Phenol (conc.% by mass) at 23°C
	✗	Phenol at >40°C
	✓	Phosphoric acid (10% by mass) at 23°C
	✓	Phosphoric acid (3% by mass) at 23°C
	✓	Phosphoric acid (conc.% by mass) at 23°C
	✓	Phthalic acid (saturated) at 23°C
	✓	Potassium bromide (10% by mass) at 23°C
	✓	Potassium chloride (10% by mass) at 23°C
	✓	Potassium chloride (10% by mass) at 70°C
	i	Potassium dichromate (5% by mass) at 23°C
	✗	Potassium hydroxide (50% by mass) at 23°C
	✓	Potassium nitrate (10% by mass) at 23°C
	✓	Potassium permanganate (1% by mass) at 23°C
	✓	Propane at 23°C
	✓	Propanol at 23°C
	✗	Propanol at >100°C
	✓	Propene at 23°C
	✓	Propionic acid (5% by mass) at 23°C
S	i	Salicylic acid (saturated) at 23°C
	✓	Silicone oils at <80°C
	✓	Silver nitrate (10% by mass) at 23°C
	✓	Sodium carbonate (10% by mass) at 23°C
	✓	Sodium chlorate (10% by mass) at 23°C
	✓	Sodium chloride (10% by mass) at 23°C
	✓	Sodium cyanide (10% by mass) at 23°C
	i	Sodium dichromate (10% by mass) at 23°C
	i	Sodium hydroxide (10% by mass) at 23°C

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	✗	Sodium hydroxide (10% by mass) at 80°C
	✗	Sodium hydroxide (50% by mass) at 23°C
	✗	Sodium hypochlorite (10% by mass) at 23°C
	✗	Steam at 23°C
	✓	Stearate at 23°C
	✓	Stearic acid at 23°C
	i	Styrene at 80°C
	✓	Sulfur at 23°C
	✓	Sulfur hexafluoride at 23°C
	✓	Sulfuric acid (2% by mass) at 23°C
	✗	Sulfuric acid (conc.% by mass) at 23°C
	✓	Sulfurous acid (saturated) at 23°C
T	✗	Tetrachloroethylene at 23°C
	✗	Tetrachloroethylene at 80°C
	i	Tetrahydrofuran at 23°C
	✓	Tetralin at 23°C
	✗	Toluene at 100°C
	✓	Toluene at 23°C
	✓	Transformer oil at 23°C
	✗	Trichloroacetic acid (50% by mass) at 23°C
	✗	Trichloroethane at 45°C
	✗	Trichloroethanol at 23°C
	i	Trichloroethylene at 23°C
	✗	Trichloroethylene at >40°C
	✓	Trichlorotrifluoroethane at 23°C
	✓	Trietanolamine at 23°C
	✗	Trifluoroethanol at 23°C

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	✓	Turpentine oil at 23°C
U	✓	Urea (20% by mass) at 23°C
	✓	Uric acid (20% by mass) at 23°C
	✓	Urine at 23°C
V	✓	Vaseline (acid free) at 23°C
	✓	Vinyl bromide at 23°C
	✓	Vinyl chloride at 23°C
W	✓	Water (chlorinated) at 80°C
	✓	Water at 23°C
	✓	Wax at 80°C
X	✗	Xylene at 100°C
	✓	Xylene at 23°C
Z	✓	Zinc chloride at 23°C

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