



Complete Technical Documentation

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PE-HD 20x2000 mm natural

Article No. P1003314

1. Technical Data Sheet

Property	Value	Unit	Test standard
Density	0.96	g/cm ³	ISO 1183
Water absorption to saturation	0.01	%	ISO 62
Water Absorption to Saturation	0.01	%	ISO 62
Tensile Strength	20	MPa	ISO 527
Modulus of elasticity (tensile)	1200	MPa	ISO 527
Breakdown Voltage	13	MPa	ISO 527
Break Elongation	200	%	ISO 527
Flexural Strength	20	MPa	ISO 527-2
Notched impact strength (Charpy)	7.5	kJ/m ²	ISO 179/1eA
Impact Resistance (Charpy)	15	kJ/m ²	ISO 179/1eU
Hardness Shore D	60	° Shore D	shore D
Ball pressure hardness	50	MPa	ISO 2039-1
Melting point	135	°C	ISO 3146
Maximal operating temperature (short-term)	95	°C	UL746B
Maximum Operating Temperature	76	°C	
Minimum temperature	-51	°C	
Heat deflection temperature (HDT/A)	45	°C	ISO 75-2
Heat deflection temperature (HDT/B)	69	°C	ISO 75
Vicat softening temperature (VST/B/50)	79	°C	ISO 306
Thermal Conductivity	0.4	W/(m·K)	DIN 52612
Thermal Expansion Coefficient	2	10 ⁻⁴ /K	ISO 11359
Dielectric Strength	45	kV/mm	IEC 60243-1
Volume Resistivity	10 ¹²	Ω·cm	EN 61340-5-1
Dielectric Constant (1 MHz)	2.4	-	IEC 60250
Dielectric Constant (100 Hz)	2.3	-	IEC 60250

Property	Value	Unit	Test standard
Dielectric loss factor (1 MHz)	0.0	-	IEC 60250
Dielectric loss factor (100 Hz)	0.0	-	IEC 60250
Surface Resistivity	10 ¹³	Ω	EN 61340-5-1
Comparative Tracking Index (CTI)	600	V	IEC 60112

2. Chemical Resistance

● Resistant
 ● Partially resistant
 ● Not resistant

Chemical	Concentration	Resist.
1,4-Dioxane	100%	●
2-Hydroxypropionic acid (lactic acid)	90%	●
Acetaldehyde	—	●
Acetic acid	100%	●
Acetic acid	100%	●
Acetic acid, aqueous	70%	●
Acetic anhydride	—	●
Acetone	100%	●
Acetone	—	●
Acronal dispersions	—	●
Acrylonitrile	—	●
Allyl acetate	—	●
Allyl alcohol	96%	●
Allyl chloride	—	●
Aluminium chloride, aqueous	any	●
Aluminium chloride, solid	—	●
Aluminium fluoride	Conc.	●
Aluminium hydroxide	—	●
Aluminium metaphosphate	—	●
Aluminium sulphate, aqueous saturated	—	●
Aluminium sulphate, solid	—	●
Ammonia	concentrated	●
Ammonia, gaseous	—	●
Ammonia, liquid	—	●

Chemical	Concentration	Resist.
Ammonium chloride	—	●
Amyl alcohol	—	●
Aniline	any	●
Anisole	—	●
Aqua regia	—	●
Beer	—	●
Benzaldehyde, aqueous	any	●
Benzene	technically grade	●
Benzene	—	●
Benzoic acid, aqueous	any	●
Benzyl alcohol	—	●
Bitumen	—	●
Bleaching solution	12.5 cl	●
Boric acid	100%	●
Brake fluid	—	●
Bromine, liquid	100%	●
Butanol, aqueous	any	●
Butter	—	●
Butyl acetate	—	●
Calcium chloride	—	●
Calcium hypochlorite, aqueous suspension	any	●
Camphor	—	●
Carbon disulphide	100%	●
Carbon disulphide	—	●
Carbon tetrachloride	—	●
Caustic soda (NaOH)	any	●
Chlorine (gas)	100%	●
Chlorine, liquid	—	●
Chloroacetic acid, aqueous	≤85%	●
Chlorobenzene	100%	●
Chlorobenzene	—	●
Chloroform	—	●

Chemical	Concentration	Resist.
Chloroform	technically grade	
Chromosulphuric acid	—	
Cider	—	
Citric acid	10%	
Citrus fruit juices	—	
Coconut oil	—	
Cod liver oil	—	
Cresol	100%	
Cresol	—	
Cyclohexane	—	
Cyclohexanol	—	
Cyclohexanone	100%	
Cyclohexanone	—	
Cyclohexene	100%	
Detergents	—	
Detergents	usual	
Dibutyl ether	—	
Dibutyl phthalate	—	
Dichloroacetic acid	—	
Dichloroethane	—	
Diesel	—	
Diesel	—	
Diethylene oxide	—	
Diglycolic acid, aqueous	30%	
Dimethyl formamide (DMF)	—	
Dimethylamine	—	
Dioxane	—	
Essential oils	—	
Ethyl acetate	100%	
Ethyl acetate	—	
Ethyl alcohol (ethanol)	96%	
Ethylene alcohol	96%	

Chemical	Concentration	Resist.
Ethylene chloride	—	●
Ethylene chloride	100%	●
Ethylene diamine	—	●
Ethylene glycol	—	●
Ferric chloride, aqueous	any	●
Ferric nitrate, aqueous saturated	—	●
Ferric nitrate, aqueous saturated	—	●
Ferric sulphate, aqueous saturated	—	●
Ferric sulphate, aqueous saturated	—	●
Ferrous (II) chloride, aqueous saturated	—	●
Ferrous (II) sulfate, aqueous saturated	—	●
Ferrous (III) chloride, aqueous saturated	—	●
Food oil	—	●
Formaldehyde (aqueous)	40%	●
Formaldehyde, aqueous	≤40%	●
Formic acid	10%	●
Formic acid, aqueous	85%	●
Frigen 12 (Freon 12)	100%	●
Frost protection agent	—	●
Fruit juices	any	●
Fuel (aromatic free)	—	●
Fuel oil	—	●
Fuel oil	—	●
Furfural	—	●
Glycerine	100%	●
Glycerine, aqueous	any	●
Glycol	100%	●
Glycol, aqueous	as supplied	●
Glysantin	—	●
Heptane	100%	●
Heptane	—	●
Hexane	—	●

Chemical	Concentration	Resist.
Honey	—	●
Hydrobromic acid, aqueous	50%	●
Hydrochloric acid	10%	●
Hydrochloric acid (concentrated)	concentrated	●
Hydrochloric acid, aqueous	any	●
Hydrofluoric acid	40%	●
Hydrogen peroxide	10%	●
Hydrogen sulfide (aqueous)	—	●
Ink	—	●
Iodine in potassium iodide solution	3% iodine	●
Isooctane	—	●
Isopropanol	—	●
Isopropyl alcohol	100%	●
Isopropyl ether	—	●
Jam	—	●
Kerosene	—	●
Linseed oil	—	●
Linseed oil	technically grade	●
Lithium bromide	—	●
Maleic acid, aqueous	any	●
Menthol	—	●
Mercurochrome	—	●
Mercury	—	●
Methanol	technically grade	●
Methyl alcohol (methanol)	100%	●
Methyl chloride	gaseous, technically grade	●
Methyl ethyl ketone (MEK)	100%	●
Methyl ethyl ketone (MEK)	technically grade	●
Methylene chloride	100%	●
Milk	—	●
Milk	—	●
Mineral oil (aromatic free)	—	●

Chemical	Concentration	Resist.
Molasses	—	●
Motor oil (heavy duty) without additives	—	●
Naphtha	—	●
Naphthalene	—	●
Nitric acid	10%	●
Nitric acid (50%)	50%	●
Nitric acid, aqueous	25%	●
Nitric acid, aqueous	50%	●
Nitrobenzene	—	●
Nitrobenzene	—	●
Oils, vegetable and animal	—	●
Oleic acid	—	●
Oleum (fuming sulphuric acid)	any	●
Oxalic acid	—	●
Oxalic acid, aqueous	any	●
Oxygen	—	●
Ozone	50 ppm	●
Ozone (gas)	≤0.5 ppm	●
Paraffin oil	100%	●
Perchloric acid, aqueous	50%	●
Perchloric acid, aqueous	70%	●
Perchloric acid, aqueous	20%	●
Perchloroethylene	—	●
Petroleum	—	●
Petroleum ether	—	●
Petroleum ether	100%	●
Phenol	—	●
Phenol (aqueous)	≈9%	●
Phosphoric acid	50%	●
Phosphoric acid, aqueous	80% L 95%	●
Phosphoric acid, aqueous	50%	●
Phosphorus trichloride	—	●

Chemical	Concentration	Resist.
Photographic developer	—	●
Photographic emulsion	as supplied	●
Photographic fixing bath	as supplied	●
Phthalic acid, aqueous	50%	●
Polyester resins	—	●
Potassium hydroxide solution	50%	●
Premium fuel	—	●
Propionic acid, aqueous	any	●
Propyl alcohol	—	●
Pyridine	—	●
Pyridine	—	●
Sea water	—	●
Silicone oil	—	●
Silicone oil	technically grade	●
Sodium borate (borax)	—	●
Sodium bromide	—	●
Sodium carbonate (aqueous)	—	●
Sodium chloride (aqueous)	—	●
Sodium hydrogen sulfite	—	●
Sodium hydroxide solution (60%)	60%	●
Sodium hydroxide solution (caustic soda)	15%	●
Sodium hydroxide, aqueous	any	●
Sodium hydroxide, solid	—	●
Sodium nitrate (aqueous)	—	●
Sodium thiosulfate	—	●
Stearic acid	—	●
Sugar syrup	—	●
Sulphuric acid	96%	●
Sulphuric acid, aqueous	98%	●
Sulphuric acid, aqueous	80%	●
Sulphuric acid, aqueous	70%	●
Sulphuric acid, aqueous	≤50%	●

Chemical	Concentration	Resist.
Tallow	technically grade	●
Tannic acid (tannin), aqueous	10%	●
Tetrahydrofuran (THF)	100%	●
Tetrahydrofuran (THF)	technically grade	●
Thionyl chloride	—	●
Thiophene	—	●
Tin (II) chloride, aqueous	any	●
Tin (IV) chloride, aqueous	saturated	●
Toluene	technically grade	●
Toluene	100%	●
Transformer oil	—	●
Transformer oil (insulating oil)	technically grade	●
Trichloroacetic acid	technically grade	●
Trichloroethylene	100%	●
Trichloroethylene	technically grade	●
Triethanolamine	—	●
Turpentine oil	technically grade	●
Urea, vattenl.	≤33%	●
Vaseline	technically grade	●
Vinegar (standard)	5-10%	●
Water	—	●
Water, distilled	—	●
Wine	—	●
Xylene	—	●
Xylene	—	●
Zinc sludge	—	●