



Specification data sheet

Mutag BioChip 25™

Product name:	Mutag BioChip 25™
Developer, manufacturer, distributor:	Multi Umwelttechnologie AG Zschorlauer Straße 56 D-08280 Aue (Germany)
Description:	High-performance biofilm carrier media for immobilizing microorganisms in biological water and wastewater treatment plants.
Applications:	COD/BOD removal, nitrification, denitrification, ANAMMOX process
Active surface area (protected):	4,370 m ² /m ³
Certified by BINAS Institute, Bielefeld:	4,850 m ² /m ³
Bulk weight (net):	170 kg/m ³ ± 0.00 kg
Color:	white
Shape:	round, paraboloid
Material:	PE virgin material
Average diameter:	approx. 25.0 mm
Average material thickness:	approx. 1.1 mm
Average specific gravity:	approx. 0.95 kg/l (without biofilm)
Pore structure:	Distributed on the surface. Due to production-related reasons, the pore structure may vary.
Packaging:	standard packaging: BigBags, each 255 kg net = 1.5 m ³ optional (on request only): Small bags, each 28.33 kg net = 1/6 m ³
Container loading:	30 m ³ in 1 x 20ft standard sea freight container or 66 m ³ in 1 x 40ft standard sea freight container
Delivery period:	depending on the delivery quantity and stock availability
Note:	The exposure of the Mutag BioChip 25™ to UV, ozone (O ₃) and high concentrations of chemicals must be avoided! (Applicable also for storing.)

Keep out of the reach of children (risk of suffocation).

Chemical resistance of PE materials at 20°C

Chemical LDPE HDPE
HDPE

Acetaldehyde	G	G
Acetamide, Sat.	E	E
Acetic Acid, 50%	E	E
Acetic Anhydride	U	L
Acetone	G	U
Acetonitrile	E	E
Acrylonitrile	E	E
Adipic Acid	E	E
Alanine	E	E
Allyl Alcohol	E	E
Aluminum Hydroxide	E	E
Aluminum Salts	E	E
Amino Acids	E	E
Ammonia	E	E
Ammonium Acetate, Sat.	E	E
Ammonium Glycolate	E	E
Ammonium Hydroxide, 30%	E	E
Ammonium Oxalate	E	E
Ammonium Salts	E	E
Amyl Chloride	U	L
Aniline	E	E
Aqua Regia	U	U
Benzaldehyde	E	G
Benzene	U	U
Benzoic Acid, Sat.	E	E
Benzyl Acetate	E	E
Benzyl Alcohol	U	L
Bromine	U	L
Bromobenzene	U	U
Bromoform	U	U
Butadiene	U	L
Butyl Chloride	U	U
Butyl Acetate	G	G
Butyl Alcohol	E	E
Butyric Acid	U	L
Calcium Hydroxide, Conc.	E	E
Calcium Hypochlorite, Sat.	E	E
Carbazole	E	E
Carbon Disulfide	U	U
Carbon Tetrachloride	L	G
Cellosolve Acetate	E	E
Chlorobenzene	U	U
Chlorine, 10% (Moist)	G	G
Chloroacetic Acid	E	E
Chloroform	L	L
Chromic Acid, 50%	E	E
Citric Acid, 10%	E	E
Cresol	U	L
Cyclohexane	U	L
Cyclohexanone	U	L
Cyclopentane	U	L
Diacetone Alcohol	L	E
Diethyl Benzene	U	L
Diethyl Ether	U	L
Diethyl Ketone	U	U
Diethyl Malonate	E	E
Diethylamine	U	L
Diethylene Glycol	E	E
Diethylene Glycol Ethyl Ether	E	E
Dimethyl Acetamide	L	E
Dimethyl Formamide	E	E
Dimethylsulfoxide	E	E
Dioxane	G	G
Dipropylene Glycol	E	E
Ether	U	L
Ethyl Acetate	E	E
Ethyl Alcohol (Absolute)	E	E
Ethyl Benzene	U	U

Chemical LDPE

Ethyl Benzoate	L	G
Ethyl Butyrate	G	G
Ethyl Chloride, Liquid	L	L
Ethyl Cyanoacetate	E	E
Ethyl Lactate	E	E
Ethylene Chloride	G	G
Ethylene Glycol	E	E
Ethylene Glycol Methyl Ether	E	E
Ethylene Oxide	L	G
Fatty Acids	E	E
Fluorides	E	E
Fluorine	L	G
Formaldehyde, 40%	E	E
Formic Acid, 98-100%	E	E
Freon TF	E	E
Fuel Oil	L	G
Gasoline	L	G
Glutaraldehyde (Disinfectant)	E	E
Glycerine	E	E
Hexane	U	G
Hydrazine	U	U
Hydrochloric Acid, 35%	E	E
Hydrofluoric Acid, 48%	E	E
Hydrogen Peroxide, 90%	E	E
Iodine Crystals	U	U
Isobutyl Alcohol	E	E
Isopropyl Acetate	G	E
Isopropyl Alcohol	E	E
Isopropyl Benzene	L	G
Isopropyl Ether	U	U
Jet Fuel	L	L
Kerosene	L	G
Lacquer Thinner	U	L
Lactic Acid, 85%	E	E
Mercury	E	E
Methoxyethyl Oleate	E	E
Methyl Acetate	L	L
Methyl Alcohol	E	E
Methyl Ethyl Ketone	U	U
Methyl Isobutyl Ketone	U	U
Methyl Propyl Ketone	G	E
Methyl-t-butyl Ether	U	L
Methylene Chloride	L	L
Mineral Oil	G	E
Mineral Spirits	L	L
Nitric Acid, 1-10%	E	E
Nitric Acid, 50%	G	G
Nitric Acid, 70%	L	G
Nitrobenzene	U	L
Nitromethane	U	L
n-Octane	E	E
Ozone	E	E
Perchloric Acid	G	G
Perchloroethylene	U	U
Phenol, Liquid	U	U
Phosphoric Acid, 85%	E	E
Picric Acid	U	U
Pine Oil	G	E
Potassium Hydroxide, Conc.	E	E
Propane Gas	U	L
Propionic Acid	L	E
Propylene Glycol	E	E
Propylene Oxide	E	E
Resorcinol, Sat.	E	E
Salicylaldehyde	E	E
Salicylic Acid, Sat.	E	E
Salt Solutions, Metallic	E	E
Silicone Oil	E	E

Chemical resistance of PE materials at 20°C

Chemical	LDPE	HDPE
Silver Acetate	E	E
Silver Nitrate	E	E
Sodium Acetate, Sat.	E	E
Sodium Hydroxide, 1%	E	G
Sodium Hydroxide, 50% to Sat	G	G
Sodium Hydrochlorite, 15%	E	E
Stearic Acid, Crystals	E	E
Sulfuric Acid, 60%	E	E
Sulfuric Acid, 98%	G	G
Sulfur Dioxide, Liquid	U	U
Sulfur Salts	L	G
Tartaric Acid	E	E
Tetrahydrofuran	L	G
Thionyl Chloride	U	U
Toluene	L	L
Tributyl Citrate	G	E
Trichloroacetic Acid	L	L
Trichloroethane	U	L
Trichloroethylene	U	L
Tris Buffer, Solution	E	E
Turpentine	L	G
Undecyl Alcohol	E	E
Urea	E	E
Vinylidene Chloride	U	L
Xylene	G	L
Zinc Stearate	E	E

Material codes:

LDPE = Low-Density Polyethylene
 HDPE = High-Density Polyethylene

Letter Codes:

E = excellent

No damage after 30 days of constant exposure

G = Good

Little or no damage after 30 days of constant exposure

L = Limited

Some effect after 7 days of constant exposure

U = unsatisfactory

Immediate damage, not recommended

NT = not tested

PLEASE NOTE:

This chemical resistance chart is a general guide only. Because of the variety of factors that can affect the chemical resistance of a plastic product, it is recommended that the user make tests under expected use conditions. Chemicals may affect the strength, appearance, colour, dimensions, flexibility or weight of plastics. Variable factors like temperature, pressure, chemical concentration, length of exposure, and combinations of chemical reagents can affect the chemical resistance of plastic materials. As temperature increases, resistance to chemical attack decreases. Environmental stress cracking differs from chemical attack and is caused by the combined factors of tensile stress, the inherent susceptibility of the plastic to stress crack and stress-cracking agents. Such agents as detergents, lubricants, plating additives and brighteners and surface-active agents, even in small concentrations, may cause cracking.