

■ PLASTIC MATERIAL

Our plugs and sockets are produced from POLYAMIDE 6 as well as PC/ABS.

The main characteristics of these materials are:

- excellent impact resistance combined with high rigidity and solidity
- high thermal stability (self-extinguishing)
- very good insulating qualities
- high disruptive strength
- high abrasion resistance
- high weathering resistance
- UV-resistance according ISO 4892-2
- very good chemical resistance to various chemicals
- free from cadmium and halogen (fluorine, chlorine, bromine, iodine, astatine)
- conform to RoHS-directive 2011/65/EU

PCE – overview chemical resistance:

Chemicals	Concentration	Resistance	
		PA6	PC/ABS
Aceton		✓	✗
Aldehyde		✓	✗
Alcohol		✓	✓
Formic acid	4-5%	✗	✓
Formic acid pure		✗	–
Formic acid hydrous		✗	–
Amine		✓	✗
Ammonia	5%	✓	✓ / ✗
Ammonia hydroxyde		✓	–
Ammonia hydroxide solution	15%	–	✓
Ammonia chlorid	35%	✓	✗
Ammonium compound (except persulphate)		✓	–
inorganic salts		✓	✓
Benzine		✓	✗
Benzene		✓	✓
Chlorine		✓	✓
Diethyl ether		✓	–
Acetic acid	5%	✓	✓
Ester		✓	✓
Ethanol	4%	✓	✓
Ethyl ether		✓	✓
Grease		✓	✓ / ✓
Hydrofluoric acid		✗	✓
Formaldehyde	5%	✓	✗
Formaldehyde pure		✓	–
Formaldehyde hydrous		✓	–
Formalin	3-4%	✓	✗

Chemicals	Concentration	Resistance	
		PA6	PC/ABS
Glutaraldehyde		✓	–
Glycol		✓	✓
Glyoxylic acid		✓	–
Glycerin		✓	✓
Pozassium hydroxide	50%	✓	✗
Ketone		✓	✗
Petrol		✓	✓ / ✗
Cresol	30%	✗	✗
Methane		✓	–
Mineral oil		✓	✓
Sodium chlorid		✓	✓
Caustic soda	10%	✓	–
Caustic soda solution	2-8%	✓	✗
Nitrobenzene		✓	✗
organic acids	1%	✓ / ✗	✓
Oil		✓	✓
peracetic acid	2%	✗	✗
Phosphoric acid	10%	✗	✓
Propanol		✓	✓
Nitric acid	2%	✗	✓
Hydrochloric acid	2%	✗	✓
Sulphuric acid	50%	✗	✓
propellants (propane-butane mixture)		–	✗
petroleum ether		–	✓
Water		✓	✓
Hydrogen peroxide	30%	✓	✓
Citric acid	20%	✓	✓

- ✓ resistant
- ✗ not resistant
- ✓ conditionally resistant
- not specified

The information about the resistance is valid with ambient temperature and can lead in coincidence of different medias to different resistances. These indications do not exempt from own tests to determine the actual suitability of the products for the intended use.

Source: Saechtling Kunststoff pocket book; Carl Hanser Verlag Munich, Vienna; DSM Engineering plastics; PCE internal tests/investigations
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