

Resistance of the bitumen based material PENTAFLEX after 30 days residence time against bases, acids and aggressive liquids and gases

Substance	Concentration [%]	Temperature up to app. 30 °C	Temperature up to app. 65 °C
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Inorganic bases

Ammonia water	any	+	+
Potassium hydroxide solution	any	+	?
Sodium hydroxide solution	any	+	?

Organic bases

Aniline	any	-	-
Pyridine and homologues	any	-	-
Triethanolamine	any	+	

Saline solution

Chlorides	any	+	+
Nitrates	any	+	+
Sulfates	any	+	+

Inorganic acids

Nitric acid	< 10	+	?
	> 10	?	?
	> 25	?	?
Hydrochlorid acids	< 25	+	?
	> 25	?	?
	> 35	?	?
Sulfuric acids	< 25	+	?
	> 25	?	?
	> 95	-	-
Fuming sulfuric acids		-	-

Organic acids

Formic acid	40	+	?
Benzoic acid	any	+	?
Butyric acid	any	-	-
Acetic acid	25	+	?
Tannic acid	< 25	+	+
	> 25	?	?
Lactic acid	< 10	+	?
	> 10	?	?
Oleic acid	any	-	-
Oxalic acid	any	+	?
Phenols	any	-	-
Phthalic acid	any	+	?
Tartaric acid	< 25	+	?
	> 25	?	?
Citric acid	any	+	+

Substance	Concentration [%]	Temperature up to app. 30 °C	Temperature up to app. 65 °C
Miscellaneous			
Waste water		+	?
Beer		+	?
Formalin		+	+
Glycol		+	+
Liquid and semi liquid manure		+	?
Hydraulic oil (e.g. Shell Tellus Oil 46)		-	-
Lime milk		+	?
Sea water	Concentr. once	+	+
Sea water	Concentr. 3 times	+	+
Treacle		+	+
Metalworking oil (e.g. Shell Macron 2246 F-12, Shell Macron 6618M-9)		-	-
Perhydrol	30	?	-
Lubricants (e.g. Avatin 331G)		-	-
Soap solution		+	+
Silage waste water		+	?
Heat transfer oil (e.g. Thermiol 66)		-	-
Transformer oil		-	-
Drinking water		+	+
Sugar solution		+	+
Methane gas		+	+
Gases			
Radon	any	+	+
Methane	any	+	+

Legend:

+ resistant

- not resistant

? to be proven in particular case