Solshield Hydrocarbon Gas Membrane Chemical Resistance Table

Symbol Key:

"+" Resistant (polymer swelling property < 3 % or polymer mass decrease < 0,5 %, polymer extensibility is not substantially changed)

"/" Limited resistance (polymer swelling property in the range of 3 – 8 %, or polymer mass decrease in the range of 0,5 – 5 %, polymer extensibility decreases by 50 %)

"-" Non-resistant (polymer swelling property > 8 %, or polymer mass decrease > 5 %, polymer extensibility decreases by > 50 %)

Z Polymer colouration alternation

o Aqueous solution of any concentration

oo Is in operation only at a low mechanical stress

X Is in operation at a boiling temperature of due material

xx Is not in operation for welded joints

Name of Agent	20 °C	60 °C
acetaldehyde	+	/
acetonhydride	+	/z
acetone	+	+x
acetonitrile	+	+
acetylchloride	/	/
acrylnitrile	+	+
alkyalcohol 96%	+	+
amyl acetate	+	+
amyl nitrite	/	/
aniline	+	+
anisole	/	/ až (to) –
benzaldehyde	+	+ až (to) /
benzene	/	/
gasoline	+	+ až (to) /
benzyl alcohol	+	+
benzyl chloride	/	/
barax	+	+
bromine liquid	-	-
sodinne benzoate	+	+
butylacetate	+	/
butylalcohol	+	+
butylenglycol	+	+
butylester of glycol acid	+	+
cyklohexane	+	+
cyclohexanol	+	+
cyclohexanone	+	/
ammonia liquid	+	

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Name of Agent	20 °C	60 °C
decalin	+	/
dibutyl ether	+ až (to) -	-
dibutyl phthalate	+	/
diethyl ether	+ až (to) /	/x
o—dichlorbenzene	/	-
p—dichlorbenzene	/	-
dichlorethylene	-	-
diisobutylketon	+	/ až (to) –
diisopropylether	+ až (to) /	-
dimethylamine	+	/
dimethylformamide	+	+ až (to) /
dimethylsulphoxide	+	+
dioxane	+	+
potassium nitrate	-	-
aquerous saturated solution	+	+
sodium nitrate	+	+
silver nitrate	+	+
calcium nitrate 50%	+	+
emulsifiers	+	+
epichlorohydrin	+	+
ethylacetate	+	/
ethyl alcohol, 96%	+	+
ethylbenzene	/	/
ethylene dichloride	/	/
ethylene glycol	+	+
ethyl ester monochlorine acetyle acid	+	+
fluorine	-	-
formaldehyde 40%	+	+
phosphates	+	+
photography developer	+	+
furfuryl alcohol	+	+
glycol	+	+
hydrazine hydrate	+	+
sodium hydrogen sulphite 10% agneous solution	+	+
potassium hydroxide	+	+
sodium hydrogen sulphite 30% agneous solution	+	+
liquid chlorine	/	-
chlorine gaseous dry	/	-
chlorine gaseous wet	/	-
chloral hydrate	+	+ z
chlorbenzene	/	-
ammonium chloride	o +	+
antimony chloride	+	+
potassium chloride	o +	+
phospohorus chloride	+	+

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Name of Agent	20 °C	60 °C
aluminium chloride	o +	+
magnesium chloride	o +	+
mercury chloride	+	+
sodium - aquerous saturated Solution	+	+
carbon chloride	/ oo	-
calcium chloride	o +	+
zin chloride	o +	+
iron chloride	o +	+
sodium hypochlorite 50%	+	+
calcium hypochlorite	o +	+
chloroform	/ oo až (to) -	-
hydrogen (dry and wet)	+	+
isooctane	+	/
isopropyl alcohol	+	+
iodine tincture	+	/ z
alum aluminium-potassium	+	/ z
ketones	+	+ až (to) /
cresol	+	+ z
sodium silicate	+	+
potassium cyanite	+	+
benzensulphonic acid	+	+
benzoic acid	+	+
boric acid	o +	+
hydrobromic acid	+	+
citric acid	+	+
dichloracetic acid 50%	+	+
dichloracetic acid 100%	+	+
nitric acid 25%	+	+
nitric acid 50%	/	- z
ethylenediaminetetraacetic acid	+	+
fluorosilicic acid	+	+
hydrofluoric acid 40%	+	/
hydrofluoric acid 70%	+	/
phosphoric acid 25%	+	+
phosphoric acid 50%	+	+
phosphoric acid 95%	+	/ z
phthalic acid 50%	+	+
glycolic acid 55%	+	+
glycolic acid 70%	+	+
chlorosulphonic acid	-	-
chromic acid 80%	xx +	- z
malic acid 50%	+	+
succinic acid 50%	+	+
silicis acid	+	+

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Name of Agent	20 °C	60 °C
hydrocyanic acid 50%	+	+
maleic acid	+	+
butyric acid	+	/
lactic acid	+	+
monochloracetic acid	+	+
formiacid	+	+
acetic acid 10%	+	+
glacial acetic acid 100%	+	/ z
propionic acid 100%	+	/
propionic acid 50%	+	+
sulphuric acid 10%	+	+
sulphuric acid 50%	+	+
sulphuric acid 98%	+	- z
sulphurous acid	+	+
stearicacid	+	/
oxalic acid 50%	+	+
trichloroacetic acid 50%	+	+
trichloroacetic acid 90%	+	/ až (to) –
tartaric acid	+	+
carbon acids aromatic	+	+
fafty acids	+	+ až (to) /
phosphorus pentoxide	+	+
sulphur trioxide	+	-
sulphur dioxide (dry)	+	+
sulphur dioxide (wet)	+	+
carbon dioxide	+	+
agua regia	-	-
tallou	+	+
potassium permanganate	+	+ z
molasses	+	+
menthol	+	/
methylalcohol	+	+
methyl cyclohexane	/	/ až (to) –
methyl chloride	/	/ x
dichloroacetic acid methyl ester	+	+
monochloracetic acid methylester	+	+
methylethyl ketone	+	/ až (to) –
methyl glycol	+	+
4 – methyl – 2 pentatnol	+	+ až (to) / z
metoxybutylalcohol	+	/
urea 33%	+	+
morpholine	+	+
diesel fuel	+	+
naphtalene	+	/
nitrobenzene	+	/

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Name of Agent	20 °C	60 °C
o – nitrotoluen	+	/
nitro gas	+	+
hydraulic oil	+	/
coconut oil	+	/
corn oil	+	/
linseed oil	+	+
mineral oil	+	+ až (to) /
engine oil	+	+ až (to) /
paraffin oil	+	+
vegetable and animal oils	+	+ až (to) /
silicone oil	+	+
furpentine oil	+ až (to) /	/
suel oil	+	/
transformer oil	+	/
spindle oil	+ až (to) /	/
oleum	-	-
fruit juices	+	+
phosphoric oxychloride	+	/
petroleum ether	+	/
kerosine	+	/
hydrogen peroxide 10%	+	+
hydrogen peroxide 30%	+	+
hydrogen peroxide 100%	+	-
beer	+	+
polyglycol	+	+
fruitbutter	+	+
propylene glycol	+	+
pyridine	+	/
crude oil	+	/
mercury	+	+
copper salt	o +	+
nickel salt	+	+
sulphuryl chloride	-	
sulphur	+	+
sulphates	+	+
sodium thiosulphate	+	+
sodium sulphide	o +	+
carbon disulphide	/	
hydrogen sulphide	+	+
starch	+	+
tannin 10%	+	+
tetrabromoethane	oo / až (to) -	-
tetrachlorethane	oo+ až (to) /	-
tetrahydrofuran	+ až (to) / oo	-
tetraline	+	/

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Name of Agent	20 °C	60 °C
thiophene	/	/
thionyl chloride	-	
tributyl phosphate	+	+
triethanolamine	+	+ z
tricresolphosphate	+	+
toluene	/	-
sodium carbonate	+	+
vaseline	oo + až (to) /	/
beeswax	+	oo / až (to) /
sea water	+	+
p – xylene	/	-
gelatin	+	+