Tech Note No. 26

Chemical Resistance for Thermo Scientific Nunc Cell Culture Thermanox Coverslips

Thermo Scientific Nunc Thermanox (TMX) Coverslips are made of a polymer that is highly resistant to most chemicals. Nunc[™] Thermanox[™] is resistant to alcohols, aldehydes, hydro carbons, dilute acids (<10%) and dilute alkalis (<2%). Thermanox has limited resistance to chlorinated hydrocarbons, however, it is not resistant to concentrated acids or bases. It is a flexible, transparent polymer that can be sectioned using a microtome and is able to withstand high temperatures (-70°C to +150°C).

Thermanox Coverslips are available in two formats.

Rectangular:

10.5 x 22 mm

22 x 60 mm

24 x 30 mm

Round:

13 mm diameter

15 mm diameter

22 mm diameter

25 mm diameter

Thermanox Coverslips are culture treated on one side for enhanced cell attachment and growth. The treated side is packaged face up toward the label. The following tables list the chemical resistance for Thermanox Coverslips.

Chemicals having no effect

1,2-dichloroethane

1,4-dioxane

1-bromonaphthalene

acetone

acetonitrile

ammonium hydroxide (2%)

benzene

butyl cellosolve

carbon tetrachloride

cellosolve

cellosolve acetate

chlor of orm

cyclohexane

cyclohexanol

cyclohexanone diacetone alcohol

diethylene glycol

diethylenetriamine

dimethylsulfoxide

ethanol

ethanolamine

ethyl acetate

ethyl alcohol

ethylene glycol

ethylene glycol

ethylene grycor

monomethyl ether acetate

formamide

glacial acetic acid

glycerol

heptane

hexyl alcohol

hydrochloric acid (10%)

isobutyl alcohol

isopropanol

isopropyl acetate

isopropyl alcohol

methanol

methyl alcohol

methyl ethyl ketone

methyl isoamyl ketone

methyl isobutyl ketone n-heptane

nitric acid (10%)

n-butyl alcohol

n-propyl alcohol

sec-butyl alcohol

sodium hydroxide (2%)

sulfuric acid (20%)

tetrahydrofuran

toluene

trichloroethylene

xylene



Chemicals that attack Thermanox plastic

1,1,2,2-tetrachloroethane acetic acid acetic anhydride acetone ammonium hydroxide (10%) benzene carbon tetrachloride chloroform dichloroacetic acid dimethylformamide ethyl acetate ethylenediamine hexafl uoroisopropanol hydrochloric acid (conc.) methyl cellosolve methyl cellosolve acetate

methyl ethyl ketone methyl n-amyl ketone methylene chloride m-cresol nitric acid (35%) n-butyl acetate n-butylamine n-propyl acetate n-propylamine o-chlorophenol o-dichlorobenzene phenol/tetrachloroethane sodium hydroxide (10%) sulfuric acid (50%) tetrahydrofuran toluene

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