Structures, Polarities, Properties, and Uses for Restek® Capillary Column Phases, in Order of Increasing Polarity

Rxi®-1ms, Rxi®-1HT, Rtx®-1

Dimethyl polysiloxane



Similar to: (100%-methyl)-polysiloxane

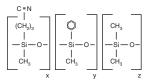
Polarity: nonpolar

Uses: solvents, petroleum products. pharmaceutical samples, waxes

[G2] [G38]

Rtx®-1301, Rtx®-624, Rtx®-G43

Cyanopropylmethyl phenylmethyl polysiloxane



Similar to: (6%-cyanopropylphenyl)methylpolysiloxane

Polarity: intermediately polar volatile compounds, insecticides

[G431

Rtx®-200

Trifluoropropylmethyl polysiloxane

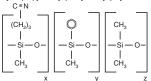


Similar to: (trifluoropropyl)-methylpolysiloxane Polarity: selective for lone pair electrons

environmental, solvents, Freon® gases, drugs, ketones, alcohols [G6]

Rtx®-1701

Cyanopropylmethyl phenylmethyl polysiloxane



Similar to: (14%-cyanopropylphenyl)-methylpolysiloxane Polarity: intermediately polar

pesticides, PCBs, alcohols, oxygenates

[G46]

Stabilwax®, Rtx®-Wax, Stabilwax®-MS

Polyethylene glycol



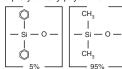
Polarity:

polar FAMEs, flavors, acids, amines, solvents, xylene isomers

[G14] [G15] [G16] [G20] [G39]

Rxi®-5ms, Rxi®-5HT, Rtx®-5, Rtx®-5MS

Diphenyl dimethyl polysiloxane



Similar to: (5%-phenyl)-methylpolysiloxane

Uses: [G27] [G36]

Rxi®-624Sil MS

C=N

(CH₂)₃

Polarity: slightly polar

flavors, environmental, aromatic hydrocarbons

CH₃

CH₃

Similar to: (6%-cyanopropylphenyl)-methylpolysiloxane

intermediately polar

CH,

CH.

volatile compounds, insecticides, residue

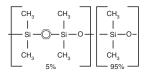
solvents in pharmaceutical products

CH.

CH₃

Rxi®-5Sil MS

1,4-bis(dimethylsiloxy)phenylene dimethyl polysiloxane



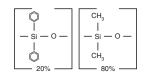
Similar to: (5%-phenyl)-methylpolysiloxane

Polarity: slightly polar

flavors, environmental, pesticides, PCBs, aromatic hydrocarbons

Rtx®-20

Diphenyl dimethyl polysiloxane



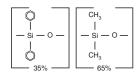
Similar to: (20%-phenyl)-methylpolysiloxane Polarity: slightly polar

volatile compounds, alcohols

[G28] [G32]

Rtx®-35

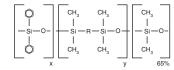
Diphenyl dimethyl polysiloxane



Similar to: (35%-phenyl)-methylpolysiloxane Polarity: intermediately polar

Polarity: pesticides, PCBs, amines [G42] nitrogen-containing herbicides

Rxi®-35Sil MS



Similar to: (35%-phenyl)-methylpolysiloxane Polarity: intermediately polar pesticides, PCBs, amines nitrogen-containing herbicides

Rtx®-50

Polarity:

Phenyl methyl polysiloxane



Similar to: (50%-phenyl)-methylpolysiloxane Polarity: intermediately polar

FAMEs, carbohydrates

Rtx®-65, Rtx®-65TG

Diphenyl dimethyl polysiloxane

Polarity:

[G17]

CH₃

Si -0

CH₃

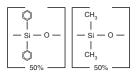
triglycerides, rosin acids, free fatty acids

Similar to: (65%-phenyl)-methylpolysiloxane

intermediately polar

Rxi®-17

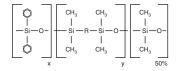
Diphenyl dimethyl polysiloxane



Similar to: (50%-phenyl)-methylpolysiloxane Polarity: intermediately polar

triglycerides, phthalate esters, steroids, phenols

Rxi®-17Sil MS

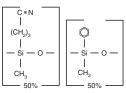


Similar to: (50%-phenyl)-methylpolysiloxane Polarity: intermediately polar

triglycerides, phthalate esters, steroids, phenols

Rtx®-225

Cyanopropylmethyl phenylmethyl polysiloxane



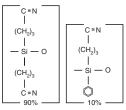
Similar to: (50%-cvanopropylmethyl)-

methylphenylpolysiloxane polar FAMEs, carbohydrates Polarity:

[G7] [G19]

Rtx®-2330

Biscyanopropyl cyanopropylphenyl polysiloxane



Similar to: (95%-cyanopropyl)-phenyl polysiloxane

Uses: cis/trans FAMEs, dioxin isomers, rosin acids [G8] [G48]

note

Structures, polarities, and properties also apply to metal MXT® stationary phases.

