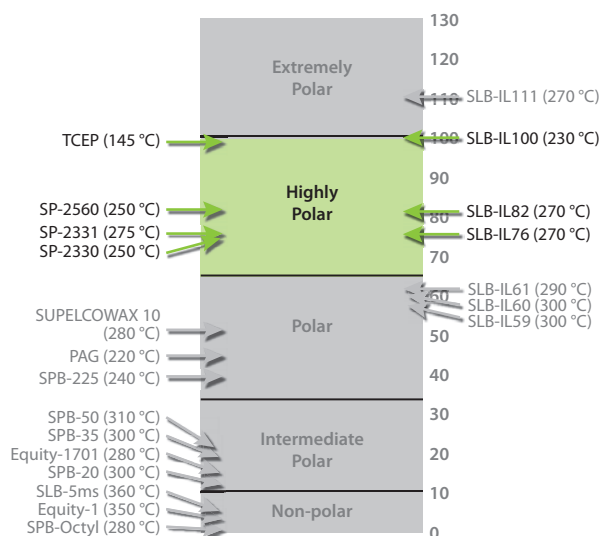


Capillary GC Columns and Guard Columns/Retention Gaps

Columns by Phase Polarity: *Highly Polar*

Highly Polar



Highly polar GC columns are made with very selective GC stationary phases, typically containing high percentages of cyanopropyl functional groups. They are commonly used to analyze polarizable compounds (such as alkenes, alkynes, and aromatic hydrocarbons) that contain 1) only carbon and hydrogen atoms, and 2) some double and/or triple bonds between carbon atoms. Elution order is determined by differences in the overall effects of possible interactions.

- Strong dispersive (van der Waals forces), very strong dipole-dipole, very strong dipole-induced dipole, and moderate basic interactions are possible. The greater the cyanopropyl content of the phase, the greater these interactions.

SP™-2330 Capillary GC Column

Application: Supelco offers the broadest range of biscyanopropyl phases in the industry. This column is a highly specialized column that offers both polar and polarizable features due to the substitution of biscyanopropyl and phenyl groups onto the polymer backbone. It can be used for both high and low temperature separations for analytes such as geometric isomers of fatty acid methyl esters (FAMES), dioxins, and aromatic compounds.

USP Code: This column meets USP G8 requirements.

Phase:

- Non-bonded
- Poly(80% biscyanopropyl/20% cyanopropylphenyl siloxane)

Temp. Limits:

- Subambient to 250 °C (isothermal or programmed)

I.D. (mm)	d _f (μm)	Length (m)	Beta Value	Cat. No.	Qty
0.25	0.20	15	313	24018	1 ea
		30	313	24019	1 ea
		60	313	24020-U	1 ea
0.32	0.20	30	400	24073	1 ea
		60	400	24074	1 ea
0.75	0.20	30	938	23328-U	1 ea

NEW PRODUCTS

SLB®-IL76 Capillary GC Column

Application: This highly polar column was the first of our second generation ionic liquid columns. It is engineered with a phase structure that allows numerous analyte solvation interactions that are not possible with other columns (non-ionic liquid columns as well as ionic liquid columns), resulting in selectivity differences even when compared to columns with similar GC column polarity scale values. Launched in 2009.

USP Code: None

Phase:

- Non-bonded
- Tri(tripropylphosphoniumhexanamido)triethylamine bis(trifluoromethyl-sulfonyl)imide

Temp. Limits:

- Subambient to 270 °C (isothermal or programmed)

I.D. (mm)	d _f (μm)	Length (m)	Beta Value	Cat. No.	Qty
0.10	0.08	15	313	28909-U	1 ea
0.25	0.20	30	313	28913-U	1 ea

SP™-2331 Capillary GC Column

Application: A highly polar cyanosiloxane column specially tested for analyses of dioxins, specifically tetrachlorodibenzodioxin (TCDD) isomers. Because the phase is stabilized, it has a maximum temperature slightly higher than non-bonded cyanosiloxane columns.

USP Code: None

Phase:

- Stabilized
- Proprietary

Temp. Limits:

- Subambient to 275 °C (isothermal or programmed)

I.D. (mm)	d _f (μm)	Length (m)	Beta Value	Cat. No.	Qty
0.25	0.20	30	313	24257	1 ea
		60	313	24104-U	1 ea
0.32	0.20	60	400	24105-U	1 ea

SP™-2380 Capillary GC Column

Application: A highly polar cyanosiloxane column commonly used for separation of geometric (cis/trans) fatty acid methyl ester (FAME) isomers as a group. Also useful when a highly polar general purpose column with good thermal stability is required.

USP Code: This column meets USP G48 requirements.

Phase:

- Stabilized
- Poly(90% biscyanopropyl/10% cyanopropylphenyl siloxane)

Temp. Limits:

- Subambient to 275 °C (isothermal or programmed)

I.D. (mm)	d _f (μm)	Length (m)	Beta Value	Cat. No.	Qty
0.25	0.20	15	313	24109	1 ea
		30	313	24110-U	1 ea
		60	313	24111	1 ea
		100	313	24317	1 ea
0.32	0.20	30	400	24116-U	1 ea
		60	400	24117	1 ea
0.53	0.20	30	663	25319	1 ea