

Rtx®-1701 (midpolarity phase; Crossbond® 14% cyanopropylphenyl/86% dimethyl polysiloxane)

- General purpose columns for alcohols, oxygenates, PCB congeners or (e.g.) Aroclor mixes, pesticides.
- Temperature range: -20°C to 280°C.
- Equivalent to USP G46 phase.

Rtx®-1701 is one of the more popular stationary phases used in capillary GC. The mix of cyano and phenyl functional groups increases the polarity and offers a different elution order relative to less polar Rtx®-1 or Rtx®-5 columns. An Rtx®-1701 column is ideal for confirmation analysis, in combination with an Rtx®-35 or Rtx®-5 column. The polymer is fully characterized to ensure long-term reproducibility, column-to-column consistency, and low bleed, even with sensitive detectors such as ECDs and MSDs.

Rtx®-1701 Columns (fused silica)

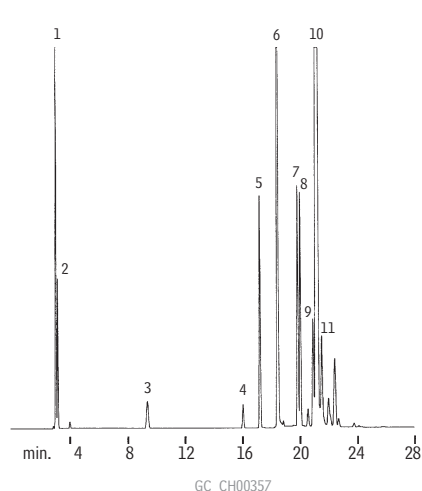
(Crossbond® 14% cyanopropylphenyl/86% dimethyl polysiloxane)

ID	df (µm)	temp. limits*	15-Meter	30-Meter	60-Meter	105-Meter
0.25mm	0.10	-20 to 280°C			12011	
	0.25	-20 to 280°C	12020	12023	12026	
	0.50	-20 to 270/280°C	12035	12038	12041	
	1.00	-20 to 260/280°C	12050	12053	12056	
0.32mm	0.10	-20 to 280°C		12009		
	0.25	-20 to 280°C	12021	12024	12027	
	0.50	-20 to 270/280°C	12036	12039	12042	
	1.00	-20 to 260/280°C	12051	12054	12057	12060
	1.50	-20 to 240/260°C	12066	12069	12072	
0.53mm	0.10	-20 to 270/280°C	12007			
	0.25	-20 to 270/280°C	12022	12025	12028	
	0.50	-20 to 260/270°C	12037	12040	12043	
	1.00	-20 to 250/270°C	12052	12055	12058	
	1.50	-20 to 240/260°C	12067	12070	12073	
	3.00	-20 to 230/250°C	12082	12085	12088	

ID	df (µm)	temp. limits	10-Meter	20-Meter	40-Meter
0.10mm	0.10	-20 to 280°C	42201	42202	
0.18mm	0.20	-20 to 280°C	42001	42002	42003
	0.40	-20 to 270/280°C	42010	42011	42012

*Maximum temperatures listed are for 15- and 30-meter lengths. Longer lengths may have a slightly reduced maximum temperature.

Styrene impurities on an Rtx®-1701 column.

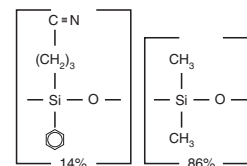


- 1,3-butadiene
- butene
- acrylonitrile
- diethylhydroxylamine
- toluene
- vinylcyclohexene
- ethylbenzene
- m*-xylene
- o*-xylene
- styrene
- cumene

Column: Rtx®-1701, 30m, 0.53mm ID, 3.0µm (cat.# 12085)
 Inj.: 0.5mL split injection of a 95% pure styrene
 Oven temp.: 40°C (hold 10 min.) to 150°C @ 12°C/min. (hold 15 min.)
 Inj./det. temp.: 150°C
 Carrier gas: helium
 Linear velocity: 20cm/sec. set @ 40°C
 FID sensitivity: 16 x 10¹¹ AFS
 Split vent: 40cc/min.

Permission to publish this chromatogram granted by Copolymer Rubber and Chemical Corp.

Rtx®-1701 Structure



similar phases

DB-1701, HP-1701, SPB-1701, VF-1701, CP-Sil 19 CB

please note

Rtx®-1701 columns are available with Integra-Guard™ built-in guard columns. Get the protection without the connection! See [page 30](#) for descriptions and ordering information.

also available

MXT® Columns

Rugged, flexible, Siltek® treated stainless steel tubing; inertness comparable to fused silica tubing. See [page 105](#) for our MXT®-1701 columns.