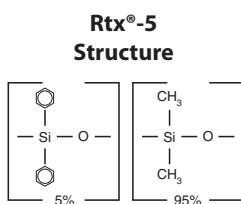


## Pharmaceutical

### Organic Volatile Impurities (OVI) Analysis



#### Rtx®-5 (low polarity phase; Crossbond® 5% diphenyl/95% dimethyl polysiloxane)

- General purpose columns for drugs, solvent impurities, pesticides, hydrocarbons, PCB congeners or (e.g.) Aroclor mixes, essential oils, semivolatiles.
- Temperature range: -60°C to 350°C.
- Equivalent to USP G27 and G36 phases.

The 5% diphenyl/95% dimethyl polysiloxane stationary phase is the most popular GC stationary phase and is used in a wide variety of applications. All residual catalysts and low molecular weight fragments are removed from the Rtx®-5 polymer, providing a tight mono-modal distribution and extremely low bleed.

#### similar phases

DB-5, HP-5, HP-5MS, Ultra-2, SPB-5, Equity-5, MDN-5

#### Rtx®-5 Columns (fused silica)

(Crossbond® 5% diphenyl/95% dimethyl polysiloxane)

ID	df ( $\mu\text{m}$ )	temp. limits*	15-Meter	30-Meter	60-Meter
0.53mm	5.00	-60 to 270/290°C	10277	10279	10283

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

#### also available

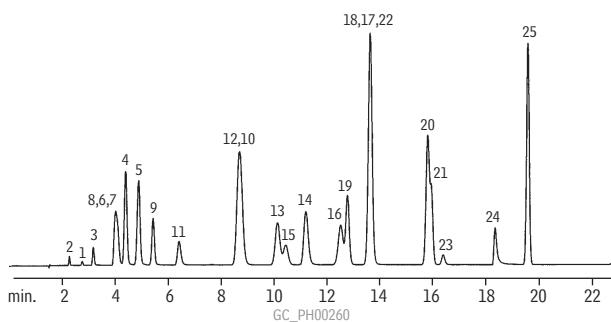
##### MXT® Columns

Rugged, flexible, Siltek® treated stainless steel tubing; inertness comparable to fused silica tubing. See page 102 for our MXT®-5 columns.

#### it's a fact

For exceptional inertness, ultra-low bleed, and unsurpassed performance, choose Rxi®-5ms columns! See pages 33-35, 37.

#### Organic volatile impurities on an Rtx®-5 (Rtx®-G27) column.



Rtx®-5 (Rtx®-G27) with 5m phenylmethyl Integra-Guard™ guard column,  
30m, 0.53mm ID, 5.0 $\mu\text{m}$  (cat.# 10279-126)

1. ethylene oxide
2. methanol
3. ethanol
4. diethyl ether
5. 1,1-dichloroethene
6. acetone
7. isopropanol
8. acetonitrile
9. methylene chloride
10. n-hexane
11. n-propanol
12. methyl ethyl ketone
13. ethyl acetate
14. tetrahydrofuran
15. chloroform
16. 1,1,1-trichloroethane
17. carbon tetrachloride
18. benzene
19. 1,2-dichloroethane
20. heptane
21. trichloroethylene
22. n-butanol
23. 1,4-dioxane
24. pyridine
25. toluene

Inj.: Headspace injection of common solvents for pharmaceutical processing. Prepared to equal about 500ppm in the bulk pharmaceutical. Samples shaken and heated at 90°C for 15 minutes, 1mL headspace injection.  
 Oven temp.: 35°C (hold 10 min.) to 100°C @ 5°C/min., to 240°C @ 25°C/min. (hold 5 min.)  
 Inj./det. temp.: 220°C/240°C  
 FID sensitivity: 1.05 x 10<sup>11</sup> AFS  
 Carrier gas: helium, 35cm/sec. set @ 35°C  
 Split ratio: 2:1

See our OVI Retention Index on page 721.