



Rt-bDEXm / Rt-TCEP

Six new
**Chiral
Phases**
from Restek

□ Rt-bDEXm

- Optimized for the separation of optical isomers.
- 230°C maximum operating temperature.
- Available in both 0.25mm and 0.32mm ID.
- Similar to Cyclodex-B, bDEX, Chiraldex-B

Our research chemists determined that the concentration of cyclodextrin in the stationary phase and the technology used to suspend it, plays a major role in the resulting column efficiency and longevity. Because of its superior performance they selected our high purity Rtx® 1701 cross-bonded polymer as a medium for providing chiral separations. The result was the development of a chiral stationary phase that provides maximum efficiency and yields optimum resolution of many enantiomeric compounds. Although the Rtx-1701 siloxane stationary phase in the Rt-bDEXm column is immobilized to provide low bleed and enhanced column longevity, the cyclodextrin material is still soluble and can be removed by solvent-rinsing. Therefore, column rejuvenation by solvent extraction of the stationary phase is not recommended.

Rtx-bDEXm (Fused Silica)

Stable to 230C

permethylated beta cyclodextrin doped into 14% cyanopropyl-86% dimethyl polysiloxane

ID	df(um)	temp. limits	30-Meter
0.25mm	1.00	-20 to 270/280°C	10900
0.32mm	1.50	-20 to 270/280°C	10901

Applications:
separation of optical isomers.

□ Rt-TCEP

- High polarity ideal for determining aromatics and oxygenates in gasoline.
- Maximum operating temperature of 235°C.
- Solvent-rinsing not recommended.

The highly polar 1,2,3-tris(2-cyanoethoxy)propane (TCEP) stationary phase has gained great importance for the GC analysis of oxygenates and aromatics in gasoline. Most gasolines contain aliphatic hydrocarbons up to n-dodecane (C12). To improve the identification of the aromatics and oxygenates it is desirable to elute benzene after C11 and toluene after C12. The extremely polar nature of the TCEP stationary phase shows a retention index for benzene greater than 1100 and permits the separation of alcohols and aromatics from the aliphatic constituents in gasoline.

The Rt-TCEP has the same high polarity as the TCEP packed column used as a precolumn in ASTM Method D4815 for the analysis of petroleum oxygenates, plus the added efficiency of a capillary column. The result is an analytical column that can separate a wide variety of compounds with an elution pattern unattainable using other high polarity siloxanes.

The Rt-TCEP is a non-bonded stationary phase coated on a specialized surface for enhanced polymer stability and extended column lifetime. Because the Rt-TCEP is not bonded, solvent

Rt-TCEP (Fused Silica)

Stable to 135C

1,2,3-tris(2-cyanoethoxy)propane

ID	df(um)	temp. limits	30-Meter	60-Meter
0.25mm	0.40	0 to 135°C	10998	10999

Applications:
petroleum oxygenates, aromatics in gasoline

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