Detailed Hydrocarbon Analysis (DHA)

Rtx®-DHA Columns (fused silica)

(Crossbond® 100% dimethyl polysiloxane—optimized for hydrocarbon analysis)

- Columns meet or exceed all ASTM D6730-01 and CAN/CGSB 3.0 No. 14.3-99 method guidelines; test report for method D6730 supplied with each column.
- Excellent responses and peak symmetry for polar oxygenates.

Gasolines are complex mixtures of hundreds of compounds. Information about concentrations of the individual components is important for evaluating raw materials and for controlling refinery processes. ASTM D6730-01 outlines a high-resolution GC method for detailed hydrocarbon analysis (DHA) of gasolines. Rtx®-DHA columns are ideal for DHA methods and easily meet or exceed both ASTM D6730-01 and Canadian General Standards Board CAN/CGSB 3.0 No. 14.3-99 requirements. Every Rtx®-DHA column is tested for retention, efficiency, stationary phase selectivity, and bleed—guaranteeing reproducible column-to-column performance.

ID	df	temp. limits	50-Meter	100-Meter	150-Meter
0.20mm	0.50µm	-60 to 300/340°C	10147		
0.25mm	0.50µm	-60 to 300/340°C		10148	
	1.00µm	-60 to 300/340°C			10149

Rtx®-5 DHA Tuning Column (fused silica)

(Crossbond® 5% diphenyl/95% dimethyl polysiloxane—optimized for hydrocarbon analysis)

ID	df	temp. limits	5-Meter
0.25mm	1.00µm	-60 to 340°C	10165

NOTE: Rtx®-1PONA columns have been renamed as Rtx®-DHA columns. There are no changes in the manufacturing process or column performance.

NEW!

Method Recommended

ASTM Method	Column	cat. #	Dimensions
D6729	Rtx-DHA-100	10148	100m x 0.25mm, 0.50µm
D6730	Rtx-DHA-100 & Rtx-5 DHA Tuning Column	10148 & 10165	100m x 0.25mm, 0.50µm w/ precolumn
D6733	Rtx-DHA-50	10147	50m x 0.20mm, 0.50µm
D5501	Rtx-DHA-150	10149	150m x 0.25mm, 1.0µm

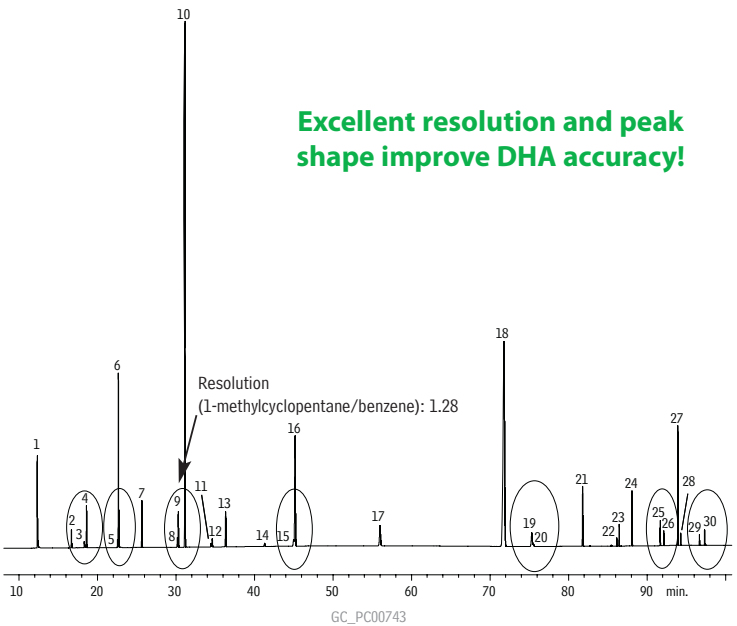
similar **phases**

Petrocol DH, DB-Petro, HP-PONA, CP-Sil PONA C8

did you **know**?

Using hydrogen instead of helium can cut analysis time in half! Visit **www.restek.com/petro** for complete analytical details.

Critical pairs of gasoline components resolved per ASTM specifications on an Rtx®-DHA column.



1. ethanol
2. C5
3. *tert*-butanol
4. 2-methylbutene-2
5. 2,3-dimethylbutane
6. methyl *tert*-butyl ether (MTBE)
7. C6
8. 1-methylcyclopentene
9. benzene
10. cyclohexane
11. 3-ethylpentane
12. 1-*tert*-2-dimethylcyclopentane
13. C7
14. 2,2,3-trimethylpentane
15. 2,3,3-trimethylpentane
16. toluene
17. C8
18. ethylbenzene
19. *p*-xylene
20. 2,3-dimethylheptane
21. C9
22. 5-methylnonane
23. 1,2-methylethylbenzene
24. C10
25. C11 (undecane)
26. 1,2,3,5-tetramethylbenzene
27. naphthalene
28. C12 (dodecane)
29. 1-methylnaphthalene
30. C13 (tridecane)

Column:	Rtx®-DHA, 100m, 0.25mm ID, 0.5µm (cat.# 10148) plus Rtx®-5DHA tuning column, 2.62m, 0.25mm ID, 1.0µm, connected via Press-Tight® connector (cat.# 20446)
Sample:	custom detailed hydrocarbon analysis (DHA) mix, neat
Inj.:	0.01µL, split (split ratio 150:1), 4mm cup inlet liner (cat.# 20709)
Inj. temp.:	200°C
Carrier gas:	helium, constant flow
Linear velocity:	28cm/sec. (2.3mL/min.)
Oven temp.:	5°C (hold 15 min.) to 50°C @ 5°C/min. (hold 50 min.) to 200°C @ 8°C/min. (hold 10 min.)
Det.:	FID @ 250°C

Circles indicate critical pairs that must be resolved.