Simulated Distillation (C5-C44) Analysis

Rtx®-2887 Column (fused silica)

(nonpolar phase; Crossbond® 100% dimethyl polysiloxane—for simulated distillation)

- Application-specific column for simulated distillation.
- Stable to 360 °C.

The Rtx®-2887 column's stationary phase, column dimensions, and film thickness have been optimized to exceed the resolution and skewing factor requirements currently specified in ASTM method D2887. Each column is individually tested to guarantee a stable baseline with low bleed and reproducible retention times. The Crossbond® methyl silicone stationary phase has increased stability compared to packed columns, ensuring stable baselines and shorter conditioning times.

ID	df	temp. limits	10-Meter
0.53mm	2.65µm	-60 to 360°C	10199

MXT®-2887 Column (Siltek® treated stainless steel)

(nonpolar phase; Crossbond® 100% dimethyl polysiloxane—for simulated distillation)

- Application-specific columns for simulated distillation.
- Stable to 400 °C.

ID	df	temp. limits	10-Meter
0.53mm	2.65µm	-60 to 400°C	70199

MXT®-1HT SimDist Column (Siltek® treated stainless steel)

NEW!

(nonpolar phases)

- Stable up to 400 °C—lowest bleed for longest column lifetime.
- Reliably meets all ASTM D2887 specifications.
- 100% dimethyl polysiloxane phase allows easy comparisons to historical data.

ID	df	temp. limits	10-Meter
0.53mm	2.65µm	-60 to 360/400°C	70132

also **available**

Rtx®-1 SimDist 2887—a packed column for process instrumentation. See **page 126**.

similar **phases**

DB-2887, Petrocol EX2887

similar **phases**

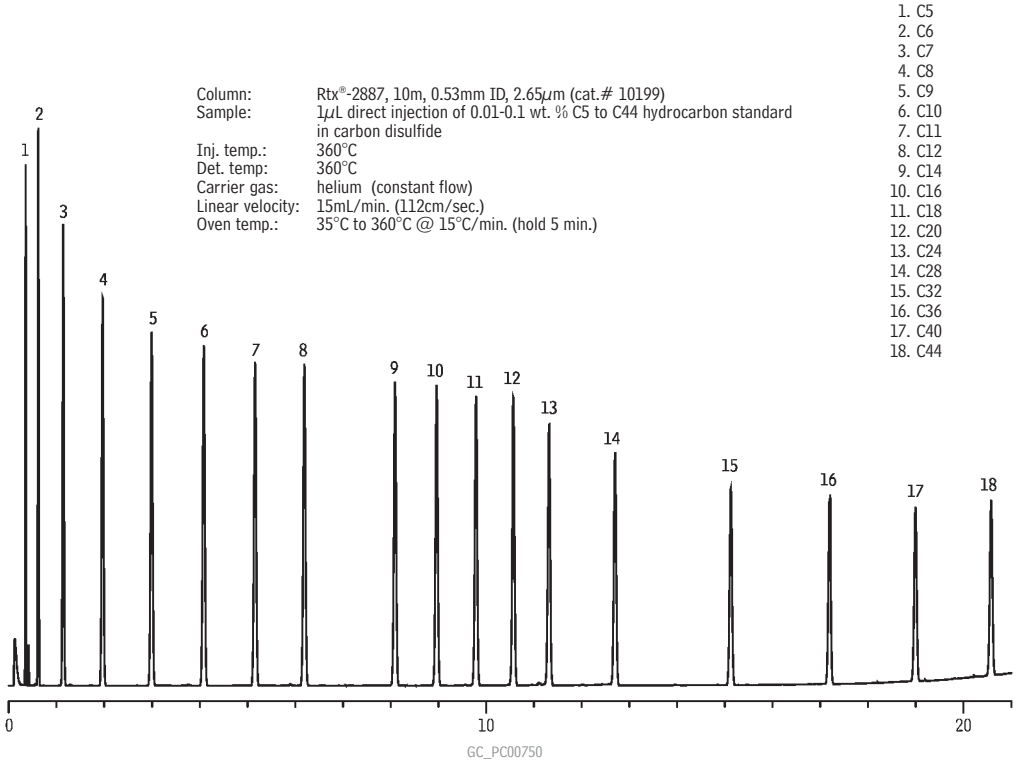
DB-2887, Petrocol EX2887, CP-HT-Simdist CB

similar **phases**

DB-1HT, CP-HT-Simdist CB

See page 78 for more dimensions.

Simulated distillation on an Rtx®-2887 column.



Simulated Distillation (C44-C100) Analysis

similar **phases**

DB-1HT, CP-HT-Simdist CB

NEW!

Method Recommended Columns

ASTM Method	Hydrocarbon Range	cat. #	Configuration
D2887	C5 - C44	70131	5m x 0.53mm, 0.88µm
		70132	10m x 0.53mm, 2.65µm
D7213 (D2887-ext)	C5 - C60	70131	5m x 0.53mm, 0.88µm
		70115	5m x 0.53mm, 0.20µm
		70112	5m x 0.53mm, 0.10µm
D3710	gasoline up to C14	70132	10m x 0.53mm, 2.65µm
D5307	crude up to C42	70115	5m x 0.53mm, 0.20µm
D6352	C10 - C90	70112	5m x 0.53mm, 0.10µm
		70115	5m x 0.53mm, 0.20µm
D7500	C7 - C110	70112	5m x 0.53mm, 0.10µm
		70115	5m x 0.53mm, 0.20µm
D7169	C5 - C100	70112	5m x 0.53mm, 0.10µm
		70115	5m x 0.53mm, 0.20µm

MXT®-1HT SimDist Column (Siltek® treated stainless steel)
(nonpolar phases)

- Stable up to 450 °C—lowest bleed for longest column lifetime.
- Reliably meet all ASTM D6352, D7169, and D7500 specifications.
- 100% dimethyl polysiloxane phase allows easy comparisons to historical data.

Accurate boiling point determination for medium and heavy fractions using GC simulated distillation requires columns and phase polymers that are robust enough to withstand high temperatures without significant degradation. Metal columns are a better alternative than fused silica, and the MXT®-1HT SimDist columns are the lowest bleed, highest efficiency columns available, outperforming other metal columns for critical method parameters.

ID	df	temp. limits	5-Meter	10-Meter
0.53mm	0.10µm	-60 to 430/450°C	70112	
	0.20µm	-60 to 430/450°C	70115	
	0.21µm	-60 to 430/450°C		70118
	0.88µm	-60 to 400/430°C	70131	70134
	1.00µm	-60 to 380/400°C		70130
	1.20µm	-60 to 380/400°C		70119
	2.65µm	-60 to 360/400°C		70132
	5.00µm	-60 to 360/400°C		70133

Low bleed, high efficiency MXT®-1HT SimDist columns outperform competitors (ASTM D6352 conditions).

Lower bleed means:

- Longer column lifetime.
- More stable calibrations.
- Accurate boiling point determinations.

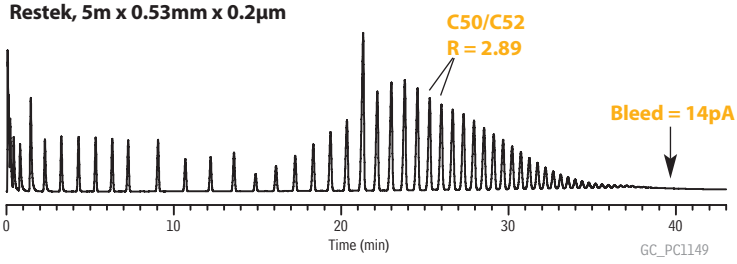
RESTEK ADVANTAGE:
Longer column lifetime and more accurate data!

Higher efficiency means:

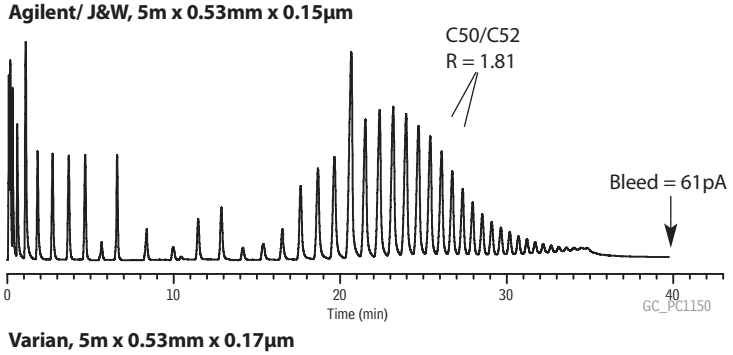
- Greater resolution; analyze more samples before method criteria are reached.
- Assured method performance.

RESTEK ADVANTAGE:
Run more samples within method specifications!

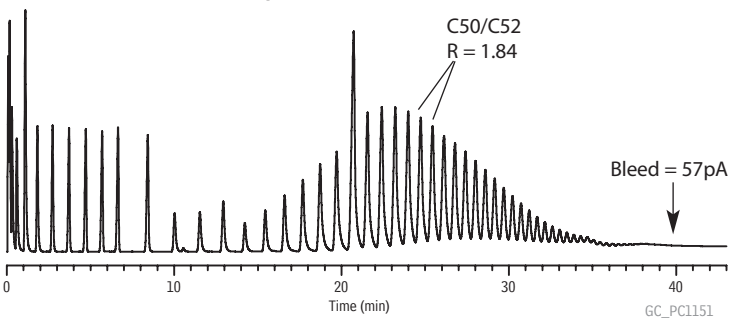
Restek, 5m x 0.53mm x 0.2µm



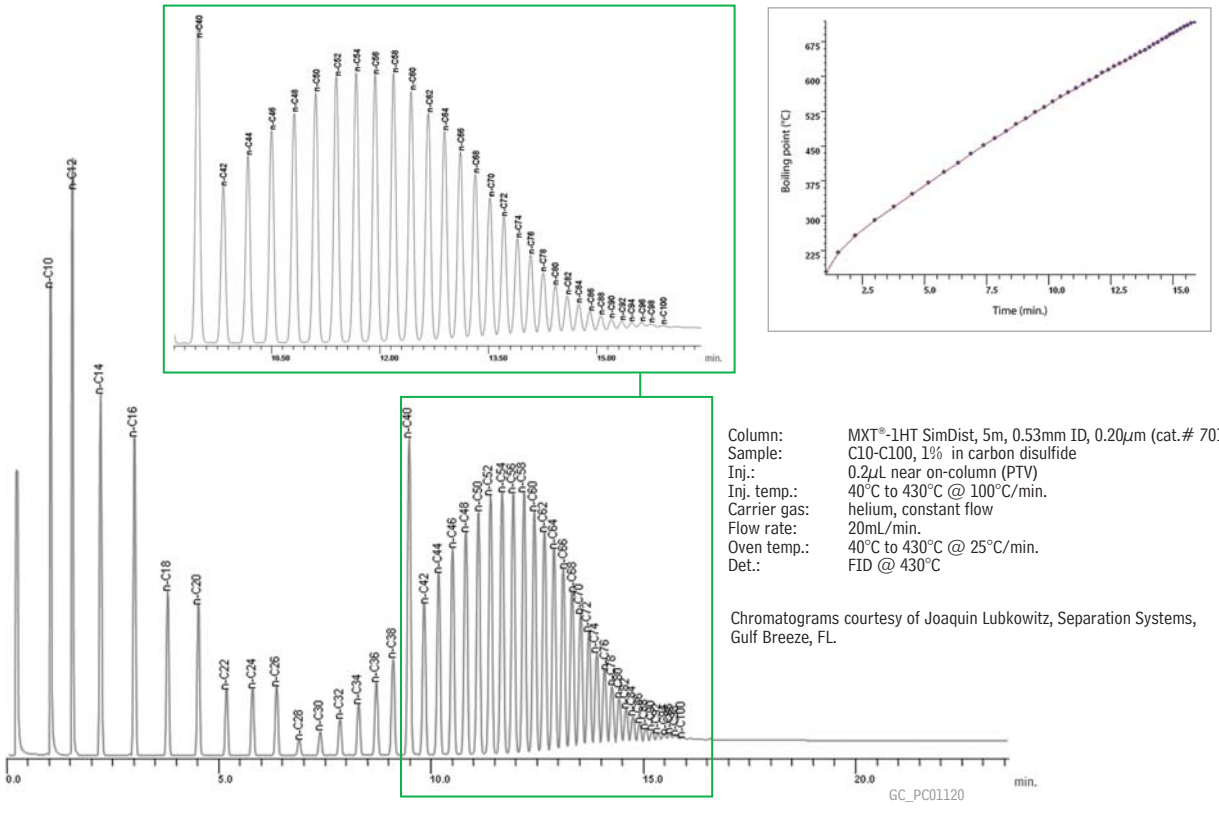
Agilent/ J&W, 5m x 0.53mm x 0.15µm



Varian, 5m x 0.53mm x 0.17µm



Robust MXT®-1HT SimDist columns meet all ASTM D6352 requirements, even under accelerated conditions.



Column: MXT®-1HT SimDist, 5m, 0.53mm ID, 0.20µm (cat.# 70115)
Sample: C10-C100, 1% in carbon disulfide
Inj.: 0.2µL near on-column (PTV)
Inj. temp.: 40°C to 430°C @ 100°C/min.
Carrier gas: helium, constant flow
Flow rate: 20mL/min.
Oven temp.: 40°C to 430°C @ 25°C/min.
Det.: FID @ 430°C

Chromatograms courtesy of Joaquin Lubkowitz, Separation Systems, Gulf Breeze, FL.

MXT®-1 SimDist/MXT®-500 SimDist

- Application-specific columns in unbreakable Siltek® treated stainless steel tubing meet all resolution criteria for high temperature simulated distillation (e.g., ASTM Method D2887 Extended).
- MXT®-1 SimDist phases offer true methyl silicone polarity; MXT®-500 SimDist phase is a carborane siloxane polymer.
- Stable to 430 °C.

MXT®-1 SimDist Column (Siltek® treated stainless steel)
(nonpolar phase)

ID	df	temp. limits	6-Meter
0.53mm	0.15µm	-60 to 430°C	70101

MXT®-500 SimDist Column (Siltek® treated stainless steel)
(nonpolar phase)

ID	df	temp. limits	6-Meter
0.53mm	0.15µm	-60 to 430°C	70104

Polywax® Calibration Materials

Description	qty.	cat.#
Polywax 655 calibration material	1g	36225
Polywax 1000 calibration material	1g	36227