ENHANCE YOUR POLAR PEAK SHAPE
ACCURATE. SENSITIVE. REPEATABLE.

IMPROVED Agilent J&W CP-Wax 52 CB GC columns

Now your analysis of polar compounds can be even more worry free

Flow path inertness is vital to any GC analysis. As the GC industry's most innovative measurement company, Agilent is uniquely positioned to ensure the inertness of every surface that touches your sample, so you can achieve the low detection levels that today's analyses demand.

The Agilent J&W Ultra Inert GC column family pushes industry standards for consistent column inertness and exceptionally low column bleed. The innovative processes, employed in the manufacture of Agilent J&W DB-Wax Ultra Inert columns, are now being applied to the production process for CP-WAX 52 CB GC columns.
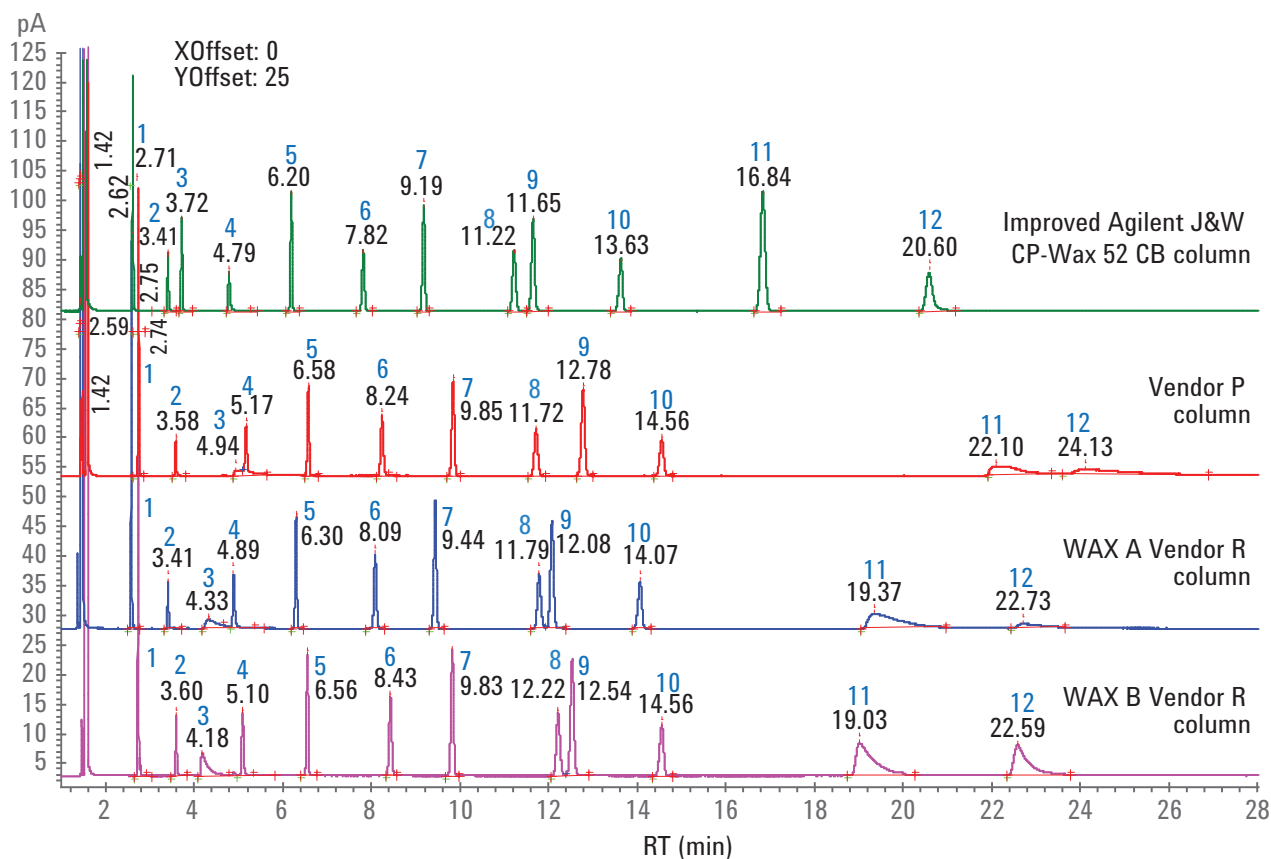
As a result, the improved Agilent J&W CP-Wax 52 CB GC columns now deliver:

- Excellent peak shape performance for active polar compounds

- Extended inertness lifetime that withstands repeated cycling to the upper temperature limits of the column

- Improved column-to-column inertness reproducibility and retention time stability

Other key performance parameters—such as selectivity, theoretical plates, and retention indices—remain unchanged for a seamless transition to improved CP-Wax 52 CB GC columns.
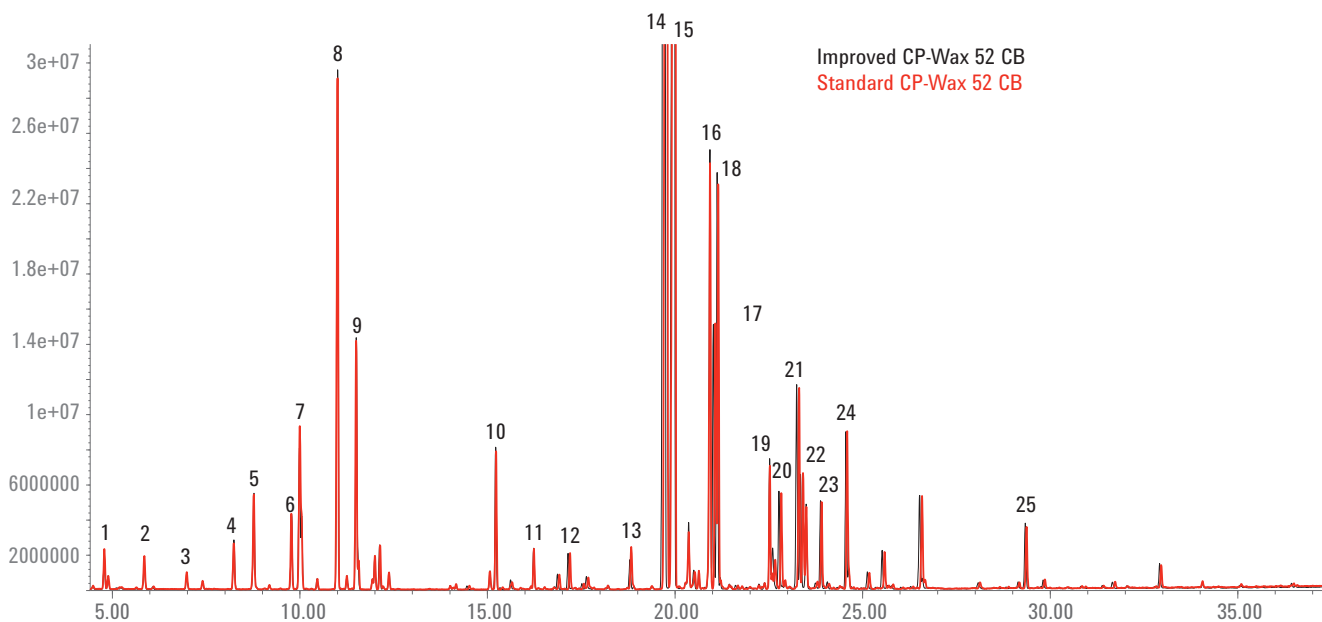
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CP-Wax 52 CB column inertness is maintained after prolonged heating at high temperatures using modified Grob mixture in dichloromethane. The inertness of competitor columns rapidly deteriorated during the longevity test at 250 °C.

FID chromatograms of the Wax Ultra Inert test mixture on an improved Agilent J&W CP-Wax 52 CB and a wide variety of wax columns from different vendors after conditioning for 50 hours at 250 °C.

A strong test probe mixture can highlight deficiencies in column activity, while a weak mixture can actually mask such deficiencies. Each improved CP-WAX 52 CB GC column that is manufactured is tested with a highly demanding test probe mixture ensuring that the columns have been properly deactivated, contain the correct amount of stationary phase, and have the same relative retention time - the test summary sheet is shipped with the column as proof of performance.

Identical retention times observed between standard and improved CP-Wax 52 CB columns.

Compounds

1. α-Pinene
2. Camphene
3. β-Pinene
4. 3-Carene
5. Myrcene
6. D-Limonene
7. Eucalyptol+β-Phellandrene
8. cis-β-Ocimene
9. trans-β-Ocimene
10. 1-Octen-3-yl-acetate
11. Hexyl butyrate
12. 1-Octen-3-ol
13. β-Linalool
14. Linalool acetate
15. Caryophyllene
16. Terpinen-4-ol
17. Lavandulyl acetate
18. β-Farnesene
19. Lavandulol
20. α-Terpineol
21. Bornanol+
22. Germacrene D
23. Geranyl acetate
24. Geraniol
25. Caryophyllene oxide

Conditions

GC system:	Agilent 7890B/5977A MSD
Column:	Agilent J&W CP-Wax 52 CB, 30 m x 0.25 mm, 0.25 µm (p/n CP8713) Improved Agilent J&W CP-Wax 52 CB, 30 m x 0.25 mm, 0.25 µm (p/n CP8713i)
Autosampler:	Agilent 7683B autosampler and sample tray, 5 µL syringe (p/n G4513-80213), 1 µL injection volume
Carrier gas:	Helium, constant flow mode, 0.7 mL/min
Inlet:	Split/splitless, 250 °C, split ratio 100:1
Oven:	50 °C (5 min), 5 °C/min to 250°C (5 min)
MS temp:	230 °C (source), 150 °C (quad)
Transfer Line:	250 °C
MS:	EI, Scan 40-400 amu

The standard CP-Wax 52 CB columns have been routinely used for years in many applications, therefore same selectivity between standard and improved versions is an important advantage for current users. It ensures an easy, fast, and simple column upgrade, with minimal method revalidation.

Ordering Guide

ID (mm)	Length (m)	Film (µm)	Temp Limits (°C)	7 in Cage	5 in Cage
0.10	10	0.10	20 to 250/265	CP7334i	
		0.20	20 to 250/265	CP7335i	
	20	0.20	20 to 250/265	CP7345i	
0.15	15	0.12	20 to 250/265	CP7791i	
	25	0.25	20 to 250/265	CP7792i	
0.20	30	0.20	20 to 250/265	CP7775i	
	50	0.20	20 to 250/265	CP7785i	
0.25	10	0.20	20 to 250/265	CP7703i	
	15	0.25	20 to 250/265	CP8513i	
	25	0.20	20 to 250/265	CP7713i	CP7713ii5
		1.20	20 to 250/265	CP7673i	CP7673ii5
	30	0.15	20 to 250/265	CP8745i	
		0.25	20 to 250/265	CP8713i	CP8713ii5
		0.50	20 to 250/265	CP8746i	
	50	0.20	20 to 250/265	CP7723i	CP7723ii5
	60	0.25	20 to 250/265	CP8723i	
		0.50	20 to 250/265	CP8748i	
0.32	15	0.25	20 to 250/265	CP8543i	
		0.50	20 to 250/265	CP8553i	
	25	0.20	20 to 250/265	CP7743i	
		0.40	20 to 250/265	CP7879i	
		1.20	20 to 250/265	CP7763i	
	30	0.25	20 to 250/265	CP8843i	
		0.50	20 to 250/265	CP8763i	
	50	0.20	20 to 250/265	CP7753i	
		0.40	20 to 250/265	CP7889i	
		1.20	20 to 250/265	CP7773i	CP7773ii5
	60	0.25	20 to 250/265	CP8853i	
		0.50	20 to 250/265	CP8773i	
		1.20	20 to 250/265	CP8073i	CP8073ii5
0.53	10	1.00	20 to 250/265	CP7628i	
		2.00	20 to 250/265	CP7648i	
	15	1.00	20 to 250/265	CP8718i	
	30	1.00	20 to 250/265	CP8738i	
	25	1.00	20 to 250/265	CP7638i	
		2.00	20 to 250/265	CP7658i	CP7658ii5
	50	1.00	20 to 250/265	CP7698i	
		2.00	20 to 250/265	CP7668i	
	60	1.00	20 to 250/265	CP8798i	
	100	2.00	20 to 250/265	CP7678i	

Improved Agilent J&W CP-Wax 52 CB GC columns are part of the Agilent Ultra Inert GC Flow Path

As regulatory agencies drive limits of detection lower for increasingly active and more complex polar samples, you cannot afford adsorption caused by flow path activity.

- Having to repeat or verify suspect analyses wastes resources, hinders productivity, and hurts your bottom line.

- With limited available sample—and the clock ticking on sample viability—you might never even get a second chance to redo your analysis.

- Unreliable results can have catastrophic implications in terms of environmental safety, the quality of products we use every day, and the foods we eat.

By minimizing activity along every step of the GC and GC/MS flow path, Agilent Inert Flow Path solutions improve system performance, ensure better results, and allow you to process more samples without unplanned maintenance and recalibration. So you won't miss a thing in your GC analysis.

Learn more about analyzing polar compounds with utmost confidence
www.agilent.com/chem/cp-wax-52cb

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