PAL Smart SPME Arrow

Robust solid phase microextraction

CTC Analytics combines a larger sorption phase with mechanical protection and documented use. Automated with PAL RTC and RSI.



Smart SPME Arrow Tool with MultiGuide · Image: CTC Analytics

CONCEPT

SPME means solid phase microextraction. The coating enriches compounds from the gas space above the sample (headspace) or directly from the liquid.

In the GC injector, the substances are released thermally. The arrow-shaped tip facilitates the piercing of the seals; during transport, the sorption phase remains protected.

Coatings

PDMS, polyacrylate, carbon WR/PDMS, DVB/PDMS and DVB/carbon WR/PDMS.

The selection depends on the sample and target compounds. Examples are flavors, odoriferous substances and organic trace substances in water.

KEY DATA

Manufacturer CTC Analytics
Automation PAL RTC / PAL RSI
Outer diameter 1,1 or 1,5 mm
Phase length 20 mm
Layer thicknesses 100, 120 or 250 um*
Smart-Chip Parameters and Usage History

INTEGRATION

Split/splitless injectors require a matching Arrow adaption kit and a liner matched to the diameter.

MultiGuide allows extraction in the Agitator or Heatex Stirrer. A Heatex Stirrer is required for immersion extraction, according to the CTC.

* Depending on the coating and design. PDMS: Polydimethylsiloxane; DVB: Divinylbenzene; Carbon WR: Carbon sorbent with a wide range of applications.

Source: CTC Analytics, PAL Smart SPME Arrow, Rev. 4, April 2025. English abbreviated version: CHROMTECH. Power values are method-dependent.

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