ISERA
INNOVATION AND SERVICE IN ANALYTICS

ERAcc
xERAcc
ERAsc
ERApc

GC Columns

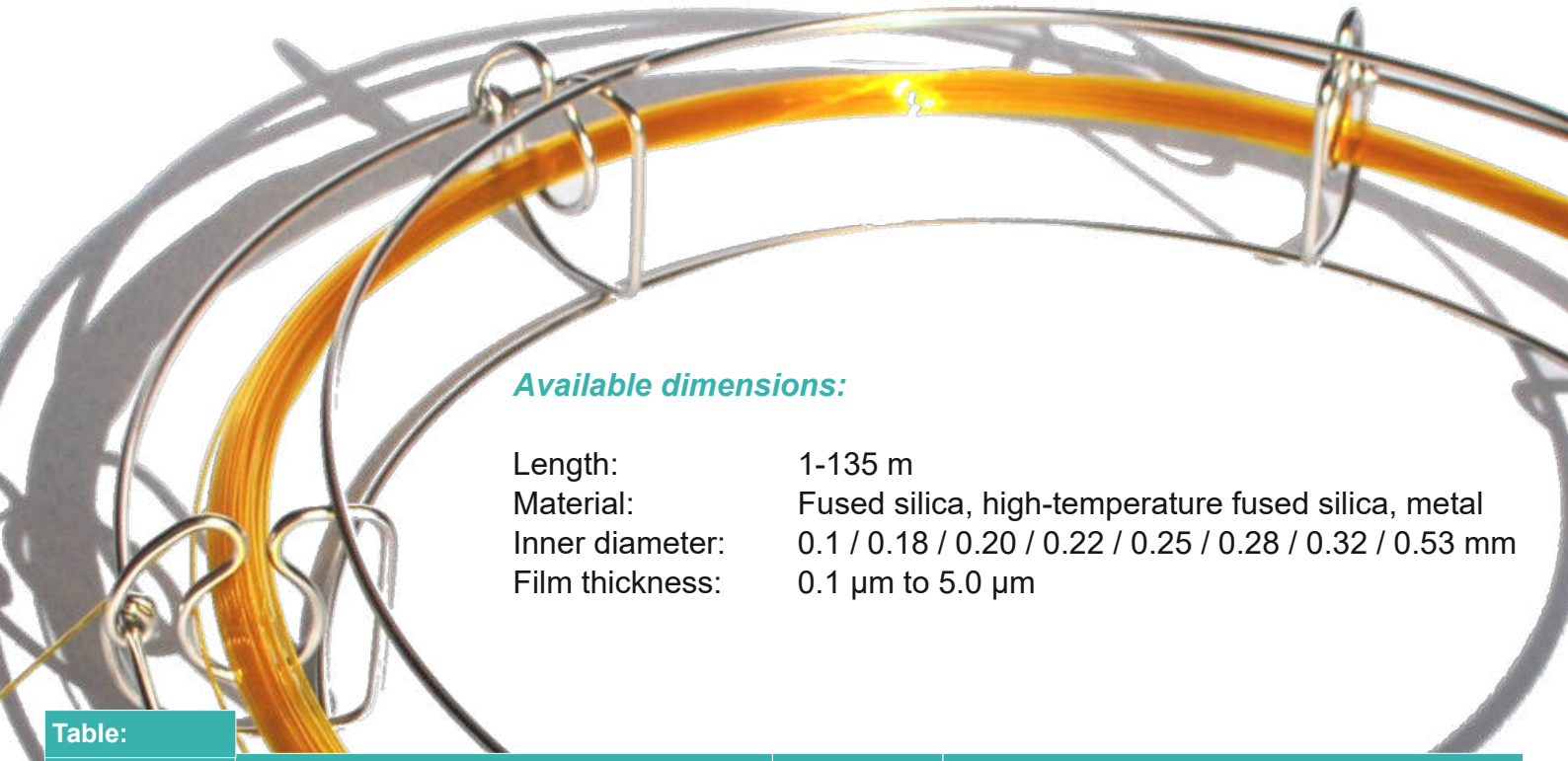
Take Advantage of the Entire Potential of Gas Chromatography

ERAcc

Capillary columns for maximum reliability

Because of their excellent performance, capillary columns made of fused silica represent the established standard in modern GC analytics nowadays. With its product lines ***ERAcc***, ***xERAcc*** and ***ERAsc***, ISERA provides you with the appropriate GC column for almost every application.

In addition to columns with standard dimensions, our portfolio also includes short columns with small diameters for ***Fast GC***-applications and columns with large diameters and film thicknesses for applications where larger sample capacities are required.
We also manufacture ***individual columns*** in accordance with our customers´ special requirements, e.g. metal columns or columns coiled according to special technical needs.



Available dimensions:

Length:	1-135 m
Material:	Fused silica, high-temperature fused silica, metal
Inner diameter:	0.1 / 0.18 / 0.20 / 0.22 / 0.25 / 0.28 / 0.32 / 0.53 mm
Film thickness:	0.1 µm to 5.0 µm

Table:

ERA phase	*Chemical description*	*USP Code*	*Equivalent phases*
ERAcc-1	100 % Dimethylpolysiloxane	G1, G2, G38	DB-1, HP-1, ZB-1, OV-1, Rtx-1, SPB-1, CP-Sil 5 CB, BP-1, Optima-1
ERAcc-1-HT	100 % Dimethylpolysiloxane	G1, G2, G38	DB-1HT, ZB-1HT, Stx-1HT
ERAcc-5	5 % Diphenyl-95 % dimethylpolysiloxane	G27, G36	DB-5, HP-5, ZB-5, OV-5, Rtx-5, SPB-5, CP-Sil 8 CB, BP-5, Optima-5
ERAcc-5-HT	5 % Diphenyl-95 % dimethylpolysiloxane	G27, G36	DB-5HT, ZB-5HT
ERAcc-5 Amin	5 % Diphenyl-95 % dimethylpolysiloxane, for basic analytes	G27, G36	Rtx-5 Amine, PTA-5, CP-Sil 8 for Amines, Optima-5 Amine
ERAcc-1701	14 % Cyanopropylphenyl-86 % dimethylpolysiloxane	G46	DB-1701, HP-1701, ZB-1701, OV-1701, Rtx-1701, SPB-1701, CP-Sil 19 CB, BP-10, Optima-1701
ERAcc-WAX	100 % Polyethylene Glycol	G14, G15, G16	DB-wax, HP-20M, ZB-wax, Macrogol 20.000, Stabilwax, Carbowax 20M, Supelcowax-10, CP-wax 52 CB, BP-20, Permabond CW 20M
ERAcc-FFAP	modified Polyethylene Glycol, for acidic analytes	G25, G35	DB-FFAP, HP-FFAP, ZB-FFAP, OV-351, Stabilwax DA, Nukol, SP-1000, CP-wax 58 CB, BP-21, Permabond FFAP

ERAcc

Capillary columns for maximum reliability

ERAcc – Robustness, Precision, Reliability

Doubtlessly the decisive key for a successful analysis by gas chromatography is the appropriate stationary phase.

ISERA´s capillary columns cover the ***whole spectrum of polarity***. Completely non-polar dimethylpolysiloxane phases are available as well as highly polar cyanopropylsiloxane or polyethylene glycol phases. All phases are synthesised to cover the high demands of chromatographic applications.

Table:

ERA phase	*Chemical description*	*USP Code*	*Equivalent phases*
ERAcc-20	20 % Diphenyl-80 % dimethylpolysiloxane	G28, G32	OV-20, Rtx-20, SPB-20, VOCOL
ERAcc-225	50 % Cyanopropylphenyl-50 % dimethylpolysiloxane	G7, G19	DB-225, HP-225, OV-225, Rtx-225, CP-Sil 43 CB, BP-225, Optima-225
ERAcc-35	35 % Diphenyl-65 % dimethylpolysiloxane	G42	DB-35, HP-35, ZB-35, Rtx-35, SPB-35, BPX-35
ERAcc-50	50 % Diphenyl-50 % dimethylpolysiloxane	G3	DB-17, HP-50+, ZB-50, OV-17, SPB-50, SPB-2250, Rtx-50, Rxi-17, CP-Sil 24 CB, Optima-17
ERAcc-50-HT	50 % Diphenyl-50 % dimethylpolysiloxane	G17	DB-17HT, TAB-CB
ERAcc-PAG	50 % Polyethylene glycol-50 % polypropylene glycol		PAG
ERAcc-210	50 % Trifluoropropyl-50 % dimethylpolysiloxane	G6	DB-210, DB-200, Rtx-200, Optima-210
ERAcc-1301	6 % Cyanopropyl-94 % dimethylpolysiloxane	G43	DB-1301, HP-1301, OV-1301, SPB-1301, Rtx-1301, Optima-1301
ERAcc-14	14 % Diphenyl-86 % dimethylpolysiloxane		CP-Sil 13 CB
ERAcc-CN	100 % Biscyanopropylpolysiloxane	G48	Rtx-2340, SP-2340, CP-Sil 88, BPX-70

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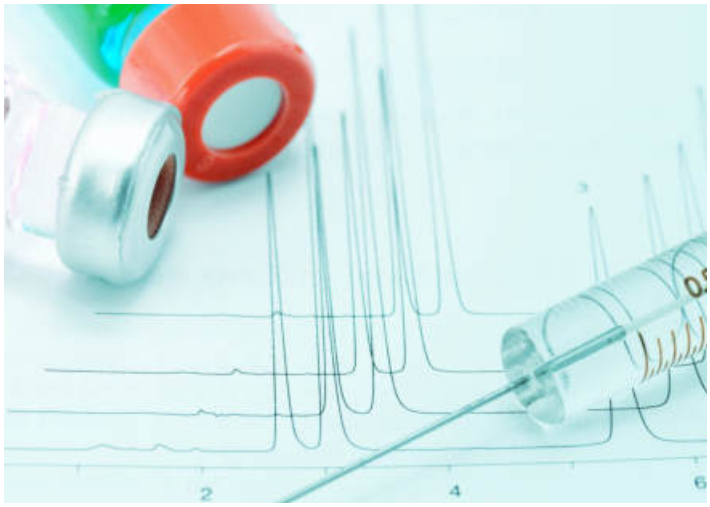
Capillary columns for maximum reliability

xERAcc columns – the non plus ultra for GC-MS coupling

Extra Low Bleeding

Ultra Inert



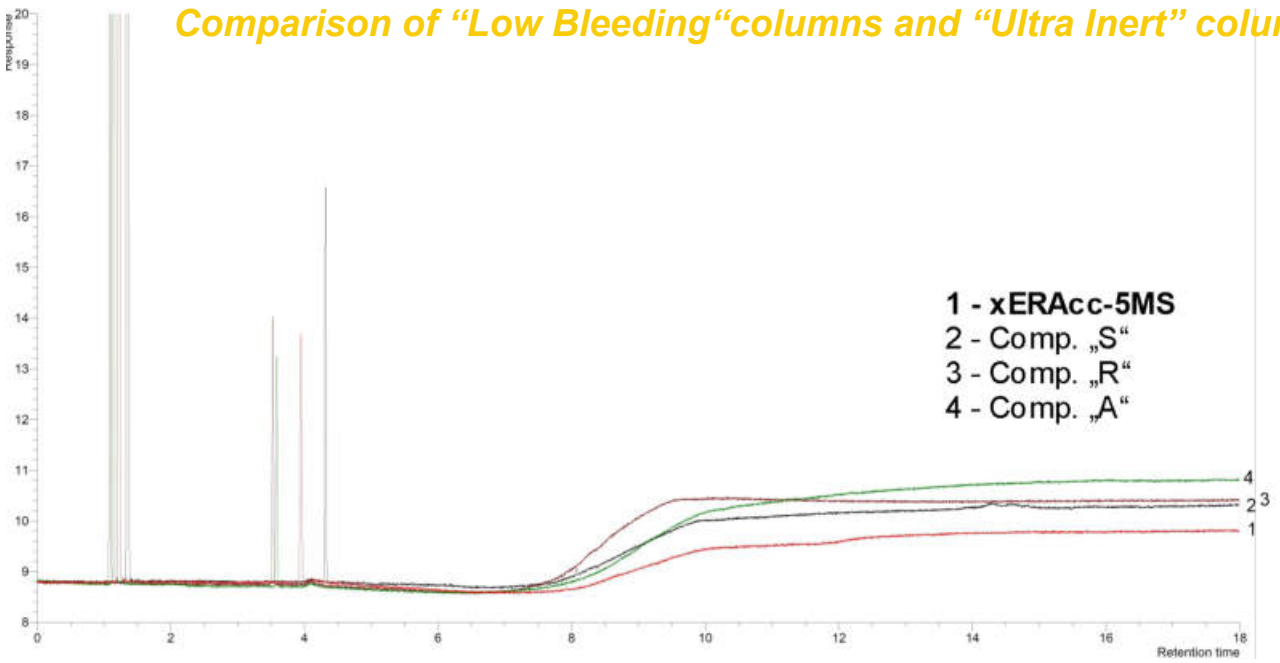
xERAcc columns are characterised by a ***minimum of bleeding*** and a ***maximum of inertness***.

Because of the ***special procedures used in synthesis and coating*** of the stationary phases, these columns are perfectly suited for the trace analysis of critical substances in combination with highly sensitive detectors like e.g. MS detectors.

Table:

ERA phases	*Chemical description*	*USP Code*	*Equivalent phases*
ERAcc-1MS	100 % Dimethylpolysiloxane	G1, G2, G38	DB-1MS, HP-1MS, ZB-1MS, Rxi-1MS, Rtx-1MS, VF-1MS, Optima-1MS
ERAcc-5MS	5 % Diphenyl-95 % dimethylpolysiloxane	G27, G36	DB-5MS, HP-5MS, ZB-5MS, OV-5MS, Rxi-5MS, Rtx-5MS, VF-5MS, CP-Sil 8 CB MS, Optima-5MS, Equity-5
ERAcc-35MS	35 % Diphenyl-65 % dimethylpolysiloxane	G42	DB-35MS, Rxi-35MS, Rtx-35Sil MS
xERAcc-1MS	100 % Dimethylpolysiloxane (stabilized)	G1, G2, G38	DB-1MS UI, HP-1MS UI, ZB-1MS, Rxi-1MS, VF-1MS, Optima-1MS Accent
xERAcc-5MS	5 % Diphenyl-95 % dimethylpolysiloxane (stabilized)	G27, G36	HP-5MS UI, ZB-5MS, Rxi-5MS, Optima-5MS, Equity-5
xERAcc-5MS-SP	Silphenylene phase, analogue 5 % Diphenyl-95 % dimethylpolysiloxane (stabilied)	G27, G36	DB-5MS UI, ZB-5MS, Rxi-5Sil MS, VF-5MS, BPX-5MS, Optima-5MS Accent
xERAcc-WAX-MS	100 % Polyethylene glycol (cross-linked and stabilized)	G14, G15, G16, G20, G39	VF-WAXMS, Stabilwax MS, ZB-Wax, Optima-WAX

Comparison of "Low Bleeding"columns and "Ultra Inert" columns



ERAsc

Capillary columns for maximum reliability

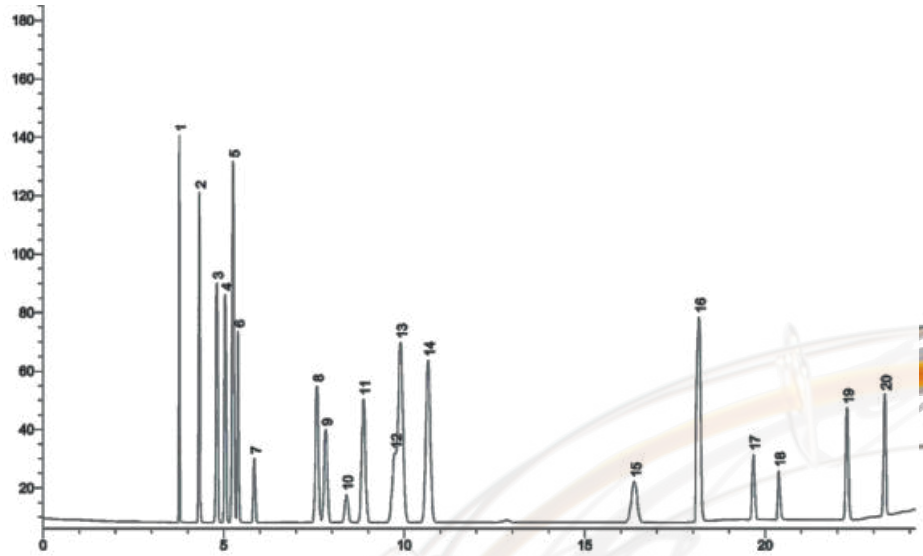
ERAsc (ERA speciality columns) – The specialists

Columns for ***special applications***; e.g. analysis of petroleum products or for the determination of pesticides.

Table:

ERA phases	*Application*	*USP-Code*	*Equivalent phases*
ERAsc-1-HT SimDist	Simulated Distillation		DB-1HT SimDist, ZB-1XT SimDist, CP SimDist, MXT-1 SimDist
ERAsc-50.2 PONA	PONA-Analysis (Paraffins, Olefins, Naphthenes, Aromatics), e.g. according ASTM D5134		HP-PONA, Rtx-1 PONA, Petrocol DH 50.2, CP-Sil PONA CB, BP-1 PONA
ERAsc-Petrol	PONA-, PIANO-, PNA-Analysis in Oil Refinery		DB-Petro, Rtx-1 PONA, Petrocol DH
ERAsc-Petro.150	PONA-, PIANO-, PNA-Analysis in Oil Refinery		Petrocol DH 150
ERAsc-5.625	EPA-Methods 625, 1625, 8270		DB-5.625, PTE-5
ERAsc-608	Chlorinated Pesticides and PCBs, EPA-Methods 508,608, 8080		DB-608, SPB-608, BP-608
ERAsc-624	Purgeables, EPA-Methods 501.3, 502.2, 524.2, 601, 602, 8010, 8015, 8020, 8221, 8240, 8260	G43	DB-624, HP-624, ZB-624, OV-624, Optima 624
ERAsc-Cresol	Phenols, Cresols		CP-Cresol
ERAsc Biodiesel	Biodiesel		Rtx-Biodiesel, Select Biodiesel
ERAsc VOC	Volatile Organic Compounds		DB-502.2, HP-VOC, VOCOL, Rtx-502.2

Head space analysis of 20 organic solvents using an ERAsc VOC column (105 m x 0.53 mm x 3 µm)



Methanol (1), Ethanol (2), Isopropanol (3), Acetone (4), 1,1-Dichloroethylene (5), Acetonitrile (6), Dichloromethane (7), Ethylmethylketone (8), Ethylacetate (9), Chloroform (10), Tetrahydrofurane (11), Isopropylacetate (12), n-Butanol (13), Benzene (14), Isobutylmethylketone (15), Toluene (16), n-Butylacetate (17), Dimethylformamide (18), Xylene (19, 20)

ERApc

The perfectly packed column for your individual analytical requirements

ERApc (ERA packed columns) – Versatile and Resistant

For many special applications packed GC columns are still the first choice. Operators appreciate the ***robustness*** as well as the large ***sample capacity*** of these columns in many routine analyses, e.g. when using mobile devices.

ISERA´s packed columns meet the diverse needs of the analysts concerning the stationary phases as well as the column hardware.

In addition to the established ***HayeSep***- and ***Porapak***-based polymeric phases a broad variety of liquid phases on carriers like ***Chromosorb*** and ***silica*** is available.

Depending on the customer´s requirements the named phases can be packed into ***stainless steel, coated stainless steel, glass*** or ***PTFE hardware***.

All stationary phases are also available as ***bulk material***.

Our comprehensive assortment of capillary columns and packed columns offers a broad range of different properties for a vast number of applications.
We also manufacture individual columns providing solutions for your special analytical challenges.

It will be our pleasure to support you in identifying the appropriate solution for your analytical task.

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