REVERSED-PHASE SPE
WITH POLYMERIC HIGH PERFORMANCE SORBENTS - PART 1

BEKOlut® Leox®

BEKOlut® Leox® is a polymeric sorbent similar to HPLC sorbents, providing nearly ideal characteristics with regard to retention and elution of polar and non-polar analytes from biological and aqueous matrices.

Typ. appl.: non-polar and polar compounds from aqueous solutions, e.g. pesticides from water, polar drugs from biological samples (sulfonamides, tetracycline and quinolone residues from meat)

- **Basis material:** PS-DVB Copolymer
- **Specific surface area:** ca. 620 m²/g
- **Pore volume:** 0,9 ml/g
- **Pore size:** 100 Angstrom
- **Particle size:** ca. 45 µm
- **pH stability:** 1-14
- **Phase mechanism:** non-polar, reversed phase

BEKOlut® Leox® plus

BEKOlut® Leox® plus is a highly crosslinked, macro-porous PS DVB copolymer with almost perfect spherical beads and an exceptionally high specific surface area.

Typ. appl.: Mainly extraction of polar compounds from aqueous solutions, e.g. pesticides, phenols, sweeteners

- **Basis material:** PS-DVB copolymer
- **Specific surface area:** > 1500 m²/g
- **Pore size:** 30 Angstrom
- **Particle size:** 60-70 µm
- **pH stability:** 1-14
- **Phase mechanism:** non-polar, reversed phase

- Symmetrical elution profiles for polar as well as lipophilic analytes
- high analyte recovery, neutral RP retention mechanism
- No swelling in organic solvents

ORDER INFORMATION

Sorbent weight	Volume	Unit / Pck.	Leox® Order number	Leox® Plus Order number
30 mg	1 ml	100	B01-P01-A030	B01-P06-A030
60 mg	1 ml	100	B01-P01-A060	B01-P06-A060
60 mg	3 ml	100	B03-P01-A060	B03-P06-A060
200 mg	3 ml	50	B03-P01-A020	B03-P06-A020
500 mg	3 ml	50	B03-P01-A050	B03-P06-A050
500 mg	6 ml	30	B06-P01-A050	B06-P06-A050
1 g	6 ml	30	B06-P01-A100	B06-P06-A100
2 g	15 ml	20	B15-P01-A200	B15-P06-A200

Also available as 6 mL, 15 mL and 25 mL glass cartridges, as LRC columns and 96-well-plates

REVERSED PHASE SPE
WITH POLYMERIC HIGH PERFORMANCE SORBENTS - PART 2

BEKOlut® HLB

Due to its ambivalent hydrophilic-lipophilic character, BEKOlut® HLB is an all-purpose phase material for a multitude of polar and non-polar compounds. In comparison with silica based C18, BEKOlut® HLB exhibits a 2-3 times higher specific surface area and thus a higher analyte capacity.

Typ. appl.: Extraction of polar and non-polar substances from aqueous solutions.

- **Basis material:** PS-DVB copolymer
- **Specific surface area:** ca. 600 m²/g
- **Pore size:** 70 Angstrom
- **Particle size:** 38-55 µm
- **pH stability:** 1-14
- **Phase mechanism:** non-polar, reversed phase

BEKOlut® HLB^{Xtra}

The functionalisation of this copolymer effects also a very pronounced hydrophilic-lipophilic balance for many types of analytes. Additionally, it provides electron pair donator and hydrogen donator/acceptor characteristics that facilitate enrichment of acidic, basic and neutral compounds without adjusting sample pH. Moreover, HLB^{Xtra} provides marked selectivity for polar compounds.

Typ. appl.: Extraction of neutral, polar and non-polar substances from aqueous solutions

- **Basis material:** PS-DVB copolymer
- **Specific surface area:** ca. 600 m²/g
- **Pore size:** 70 Angstrom
- **Particle size:** 38-55 µm
- **pH stability:** 1-14
- **Phase mechanism:** non-polar, reversed phase

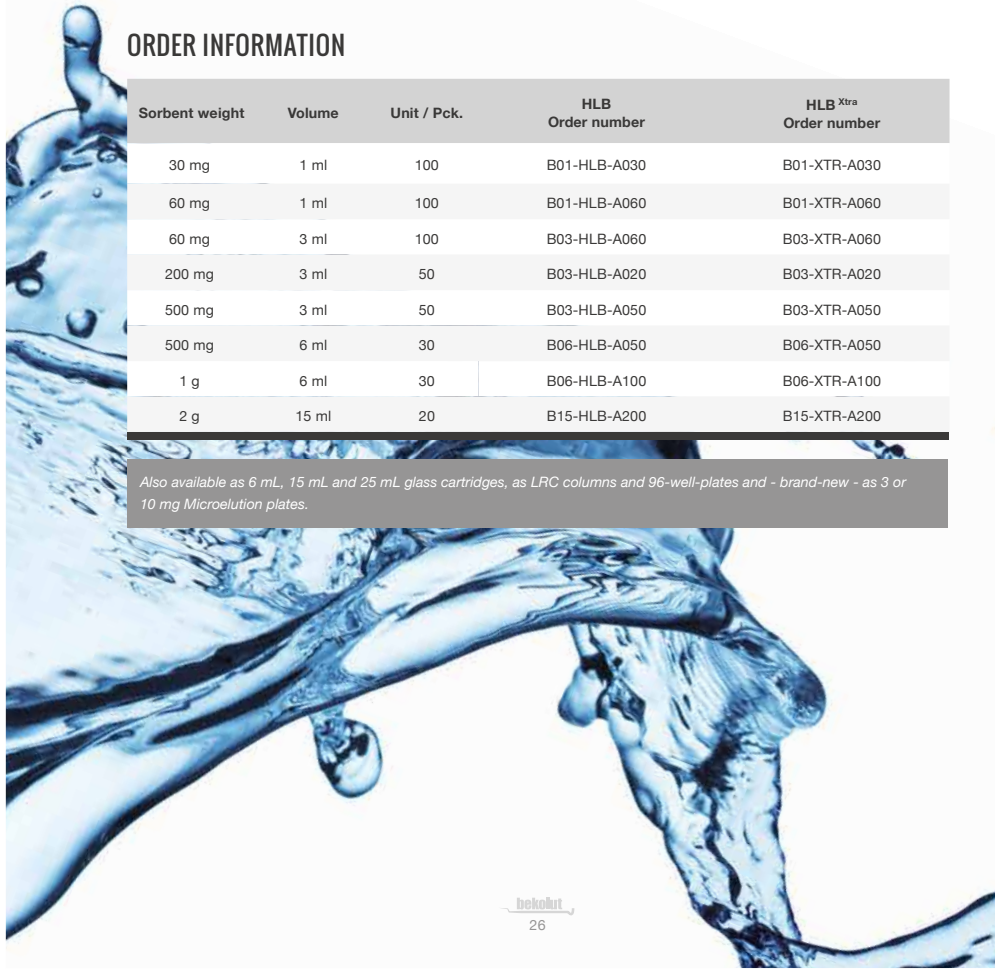
Recommended generic method (BEKOlut® HLB^{Xtra}, 60 mg/3 mL) :

	Neutral and basic compounds (e.g. Metoprolol)	Acidic compounds (e.g. Salicylic acid)
Conditioning	4 mL methanol 4 mL water	4 mL methanol 4 mL water
Sample loading	1 mL aqueous sample	1 mL aqueous sample
Washing	2 mL water (max. 5 % organics) 4 min drying	2 mL mL water (max. 5 % organics) 4 min drying
Elution	4 mL methanol	4 mL methanol (possibly addition of acid)

Comparison of the [%] recoveries for neutral, basic and acidic analytes after SPE

Analyte	BEKOlut® HLB	BEKOlut® HLB^{Xtra}	Competitor
Caffeine mg	98.6	100.4	100.1
Metoprolol	80.1	88.2	91.2
Salicylic acid	21.4	109.7	8,0

Order information
on next page



ORDER INFORMATION

Sorbent weight	Volume	Unit / Pck.	HLB Order number	HLB Xtra Order number
30 mg	1 ml	100	B01-HLB-A030	B01-XTR-A030
60 mg	1 ml	100	B01-HLB-A060	B01-XTR-A060
60 mg	3 ml	100	B03-HLB-A060	B03-XTR-A060
200 mg	3 ml	50	B03-HLB-A020	B03-XTR-A020
500 mg	3 ml	50	B03-HLB-A050	B03-XTR-A050
500 mg	6 ml	30	B06-HLB-A050	B06-XTR-A050
1 g	6 ml	30	B06-HLB-A100	B06-XTR-A100
2 g	15 ml	20	B15-HLB-A200	B15-XTR-A200

Also available as 6 mL, 15 mL and 25 mL glass cartridges, as LRC columns and 96-well-plates and - brand-new - as 3 or 10 mg Microelution plates.