



Choosing your SPE solution

Compound of interest

Water soluble

Organic soluble

Non-ionic

Ionic

Soluble in non-polar solvent

Soluble in moderately polar

Soluble in polar solvent

Non-polar

Moderately polar

Polar

Anionic

Cationic

Non-polar

Moderately polar

Polar

Reversed-phase

Normal phase

Normal phase

Anion exchange

Cation exchange

Reversed-phase

Normal phase

Normal phase

Reversed-phase

Reversed-phase

Reversed-phase

HyperSep Retain PEP

HyperSep Retain PEP

HyperSep Retain PEP

SOLA SAX

HyperSep Retain-CX

HyperSep Retain PEP

HyperSep Silica

HyperSep Hypercarb

SOLA HRP

SOLA HRP

HyperSep Hypercarb

SOLAμ SAX

SOLA SCX

SOLA HRP

HyperSep Florisil

HyperSep Cyano

SOLAμ HRP

SOLAμ HRP

HyperSep Cyano

SOLA WAX

SOLAμ SCX

SOLAμ HRP

HyperSep Aminopropyl

HyperSep C18

HyperSep Silica

HyperSep Aminopropyl

SOLAμ WAX

SOLA WCX

HyperSep C18

HyperSep Diol

HyperSep C8

HyperSep Florisil

HyperSep Diol

HyperSep Retain-CX

SOLAμ WCX

HyperSep C8

HyperSep Phenyl

HyperSep Retain-AX

HyperSep Verify-CX

HyperSep Phenyl

HyperSep Verify-AX

HyperSep SCX

HyperSep SAX

Thermo Scientific™ solid phase extraction (SPE) phases

Polymers	Applications include
HyperSep™ Retain PEP Polystyrene divinylbenzene material surface modified with urea groups	<ul style="list-style-type: none"> Drugs and metabolites in biological matrices Environmental samples Desalting of peptides in serum, plasma or biological fluids
HyperSep™ Retain-CX Versatile polymeric material for retention of basic compounds	<ul style="list-style-type: none"> Drugs of abuse from biological matrices HyperSep C18
HyperSep™ Retain-AX Versatile polymeric material for retention of acidic compounds	<ul style="list-style-type: none"> Acidic drugs of abuse from biological matrices (THC and its metabolites)
HyperSep™ Hypercarb Unique material for retention of highly polar compounds	<ul style="list-style-type: none"> Retention and separation of highly polar species. Ideal for problem analytes in SPE applications Extraction of polar and non-polar analytes, such as vitamin D biomarkers Drugs and metabolites in biological matrices Desalting of peptides in serum, plasma, or biological fluids
SOLA™ and SOLAμ™ HRP Next-generation polystyrene divinylbenzene material surface functionalized with pyrrolidone	<ul style="list-style-type: none"> Enhanced retention of weak bases Drugs and metabolites in biological matrices, such as synthetic cathinones Desalting of peptides in serum, plasma, or biological fluids
SOLA™ and SOLAμ™ SCX Next-generation polystyrene divinylbenzene material surface functionalized with sulphonate groups	<ul style="list-style-type: none"> Enhanced retention of weak acids, such as 5-HIAA Drugs and metabolites in biological matrices Desalting of peptides in serum, plasma, or biological fluids
SOLA™ and SOLAμ™ SAX Next-generation polystyrene divinylbenzene material surface functionalized with quaternary amine groups	<ul style="list-style-type: none"> Enhanced retention of strong bases, such as acetylcholinesterase inhibitors Drugs and metabolites in biological matrices Desalting of peptides in serum, plasma, or biological fluids
SOLA™ and SOLAμ™ WCX Next-generation polystyrene divinylbenzene material surface functionalized with carboxylic acid groups	<ul style="list-style-type: none"> Enhanced retention of strong acids, such as niflumic acid Drugs and metabolites in biological matrices Desalting of peptides in serum, plasma, or biological fluids
SOLA™ and SOLAμ™ WAX Next-generation polystyrene divinylbenzene material surface functionalized with tertiary amine groups	<ul style="list-style-type: none"> Enhanced retention of strong acids, such as niflumic acid Drugs and metabolites in biological matrices Desalting of peptides in serum, plasma, or biological fluids
Reversed-phase silica phases	Applications include
HyperSep™ C18 Highly retentive alkyl-bonded silica phase for non-polar to moderately polar compounds	<ul style="list-style-type: none"> Drugs and their metabolites in biological matrices Trace organics in environmental water samples Toxins in food samples
HyperSep™ C8 Less retentive alternative to C18 for non-polar to moderately polar compounds	<ul style="list-style-type: none"> Drugs and their metabolites in biological matrices Trace organics in environmental water samples Toxins in food samples
HyperSep™ Phenyl Alternative selectivity for retention of basic compounds	<ul style="list-style-type: none"> Benzodiazepines in biological matrices Extraction of aromatic compounds
Normal phase silica phases	Applications include
HyperSep™ Silica A polar sorbent primarily used to retain analytes from non-polar matrices	<ul style="list-style-type: none"> Aldehydes Pesticides Carotenoids Aflatoxins Phospholipids Amines Herbicides Fat soluble vitamins Fatty acids
HyperSep™ Florisil Ideal for the isolation of polar compounds from non-polar matrices	<ul style="list-style-type: none"> Pesticides using AOAC and EPA methods, as well as Polychlorinated biphenyls (PCBs) in transformer oil
HyperSep™ Cyano For retention of polar compounds from non-polar matrices	<ul style="list-style-type: none"> Retention of polar compounds from hexane and oil
HyperSep™ Aminopropyl A polar sorbent for both polar and anion exchange interactions	<ul style="list-style-type: none"> Petroleum fractionation Saccharides Drugs and drug metabolites
HyperSep™ Diol For extraction of polar compounds	<ul style="list-style-type: none"> Normal phase extraction Purification of polar compounds
Ion-exchange phases	Applications include
HyperSep™ SAX (Strong anion exchanger) Strong anion exchange sorbent for extraction of weak acids	<ul style="list-style-type: none"> Removal of acidic food pigments Removal of phenolic compounds Nucleic acids and surfactants
HyperSep™ SCX (Strong cation exchanger) Strong cation exchange sorbent for extraction of charged basic compounds	<ul style="list-style-type: none"> Antibiotics Organic bases Catecholamines Drugs Amino acids Herbicides
HyperSep™ Verify-CX Non-polar and anionic characteristics for improved analysis of basic drugs of abuse	<ul style="list-style-type: none"> Basic drugs of abuse from biological matrices
HyperSep™ Verify-AX Non-polar and cationic characteristics for improved analysis of acidic drugs of abuse	<ul style="list-style-type: none"> Acidic drugs of abuse from biological matrices (THC and its metabolites)

Find out more at thermofisher.com/speconsumables