TELOS

Silica-based Solid Phase Extraction Columns

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Overview

This catalogues provides an overview of the latest TELOS® Silica-based SPE Products available from Kinesis. The comprehensive range includes SPE sorbents from each of the main retention mechanisms: Non-polar, Ion Exchange and Polar SPE.

High Quality Products

The individual components of TELOS Silica-based SPE Columns are tested at each stage of manufacture to provide a high purity product. Each batch of sorbent is cleaned post-synthesis to ensure removal of reagents and impurities, so there is no leaching of impurities from the finished SPE column. Tubes and frits are cleaned to levels that meet today's analytical challenges /detection limits and the assembled SPE column is tested for purity before being packaged. The columns are packaged in sealed foil bags to protect them from moisture and environmental contaminants.

Sorbents and Configurations

The products listed are a selection of the complete range TELOS Sample Preparation Products. Kinesis also has mixed-mode and polymer-based products. To find out more, visit the Kinesis web site.

If there are specific requirements for any sorbents not listed, or an alternative sorbent mass/reservoir volume configuration, please contact Kinesis.

For other TELOS Sample Preparation Products from Kinesis, visit the Products section of **kinesis.co.uk**

Technical Centre

Kinesis has a series of documents to support the range of TELOS Sample Preparation Products. These technical resources provide guidance for various aspects of solid phase extraction, including the general principles and method development.

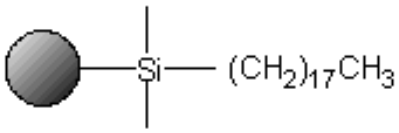
Visit the Resources section of the Kinesis website.

TELOS Non-Polar Silca-based SPE Columns

Non-polar (reversed phase) SPE remains the most popular SPE approach in today's analytical laboratories, due to its applicability to a wide range of compounds. Provided the analytes have sufficient non-polar (hydrophobic) character, extraction of single compounds or multiple analyte suites is achieved.

The TELOS range covers the most popular non-polar SPE sorbents. The surface chemistry is optimised to provide the correct balance of non-polar and silanol interactions, with endcapped sorbents available for those applications requiring minimal secondary silanol interactions to enhance compound retention and elution.

TELOS C18 (Octadecyl)

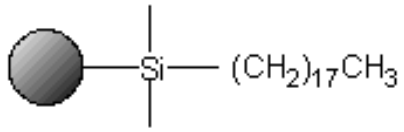


Functional Group	Octadecyl (C18)
Average Particle Size	50µm
Pore Diameter	70Å
Endcapped	No
Carbon Loading %	17.5%
Analytes	Wide ranging Non-polar character
Matrix	Aqueous
Retention Mechanism	Primary: Non-polar (Reversed Phase) Secondary: Polar / Weak Cation Exchange

Ordering Information

PART NUMBER	DESCRIPTION	PACK SIZE
200-100M-001T	TELOS C18 100mg/1ml SPE Columns	100
200-100M-003T	TELOS C18 100mg/3ml SPE Columns	50
200-200M-003T	TELOS C18 200mg/3ml SPE Columns	50
200-500M-003T	TELOS C18 500mg/3ml SPE Columns	50
200-500M-006T	TELOS C18 500mg/6ml SPE Columns	30
200-001G-006T	TELOS C18 1g/6ml SPE Columns	30
200-002G-015T	TELOS C18 2g/15ml SPE Columns	20

TELOS C18(EC) (Octadecyl, Endcapped)

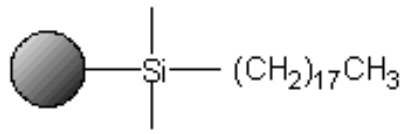


	Functional Group	Octadecyl (C18)
	Average Particle Size	50µm
	Pore Diameter	70Å
	Endcapped	Yes
	Carbon Loading %	18%
Analytes	Wide ranging Non-polar character	
Matrix	Aqueous	
Retention Mechanism	Primary: Non-polar (Reversed Phase) Secondary: Endcapped to reduce Polar / Weak Cation Exchange secondary interactions	

Ordering Information

PART NUMBER	DESCRIPTION	PACK SIZE
210-050M-001T	TELOS C18(EC) 50mg/1ml SPE Columns	100
210-100M-001T	TELOS C18(EC) 100g/1ml SPE Columns	100
210-100M-003T	TELOS C18(EC) 100mg/3ml SPE Columns	50
210-200M-003T	TELOS C18(EC) 200mg/3ml SPE Columns	50
210-500M-003T	TELOS C18(EC) 500mg/3ml SPE Columns	50
210-500M-006T	TELOS C18(EC) 500mg/6ml SPE Columns	30
210-001G-006T	TELOS C18(EC) 1g/6ml SPE Columns	30
210-002G-015T	TELOS C18(EC) 2g/15ml SPE Columns	20

TELOS C18 AQ(EC) (Octadecyl, Endcapped)

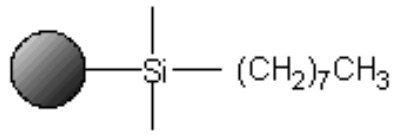


	Functional Group	Octadecyl (C18)
	Average Particle Size	50µm
	Pore Diameter	60Å
	Endcapped	Yes
	Carbon Loading %	18%
Analytes	Wide ranging Non-polar character	
Matrix	Large volume aqueous samples	
Retention Mechanism	Primary: Non-polar (Reversed Phase) Secondary: Endcapped to reduce Polar / Weak Cation Exchange secondary interactions	

Ordering Information

PART NUMBER	DESCRIPTION	PACK SIZE
212-500M-006T	TELOS C18 AQ(EC) 500g/6ml SPE Columns	30
212-001G-006T	TELOS C18 AQ(EC) 100mg/1ml SPE Columns	30

TELOS C8(EC) (Octyl, Endcapped)

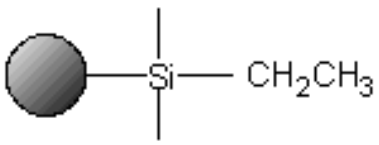


	Functional Group	Octyl (C8)
	Average Particle Size	50µm
	Pore Diameter	70Å
	Endcapped	Yes
	Carbon Loading %	9%
Analytes	Wide ranging Non-polar character	
Matrix	Aqueous	
Retention Mechanism	Primary: Non-polar (Reversed Phase) Secondary: Endcapped to reduce Polar / Weak Cation Exchange secondary interactions	

Ordering Information

PART NUMBER	DESCRIPTION	PACK SIZE
230-100M-001T	TELOS C8(EC) 100mg/1ml SPE Columns	100
230-100M-003T	TELOS C8(EC) 100mg/3ml SPE Columns	50
230-200M-003T	TELOS C8(EC) 200mg/3ml SPE Columns	50
230-500M-003T	TELOS C8(EC) 500mg/3ml SPE Columns	50

TELOS C2(EC) (Ethyl, Endcapped)



	Functional Group	Ethyl (C2)
	Average Particle Size	50µm
	Pore Diameter	70Å
	Endcapped	Yes
	Carbon Loading %	6%
Analytes	Wide ranging Non-polar character	
Matrix	Aqueous	
Retention Mechanism	Primary: Non-polar (Reversed Phase) Secondary: Endcapped to reduce Polar / Weak Cation Exchange secondary interactions	

Ordering Information

PART NUMBER	DESCRIPTION	PACK SIZE
250-100M-001T	TELOS C2(EC) 100mg/1ml SPE Columns	100
250-100M-003T	TELOS C2(EC) 100mg/3ml SPE Columns	50
250-200M-003T	TELOS C2(EC) 200mg/3ml SPE Columns	50
250-500M-003T	TELOS C2(EC) 500mg/3ml SPE Columns	50

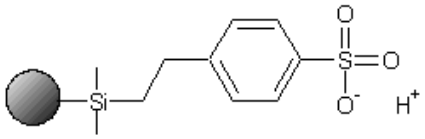
TELOS Ion Exchange Silca-based SPE Columns

A series of TELOS Ion Exchange Sorbents are available for selective extraction of ionisable analytes from aqueous and non-aqueous samples. The TELOS SPE Column Range includes strong and weak cation exchange sorbents for extraction of basic compounds and strong and weak anion exchange sorbents for acidic compounds.

TELOS Cation Exchange Silica-based SPE Columns

TELOS Cation Exchange Sorbents are used to extract basic analytes with a positive charge (depending on pH conditions) from aqueous samples. These sorbents can also be used with non-polar solvent extracts.

TELOS SCX (Ethylbenzene Sulfonic Acid)



	Functional Group	Ethylbenzene Sulfonic Acid (Free Acid)
	Average Particle Size	50µm
	Pore Diameter	70Å
	pK_a	N/A
	Exchance Capacity	0.6meq/g
Analytes	Ionisable basic analytes with pK range 8 - 12	
Matrix	Aqueous generally, can also be used with non-polar solvents for polar interactions	
Retention Mechanism	Primary: Strong Cation Exchange Secondary: Polar / Weak Cation Exchange	

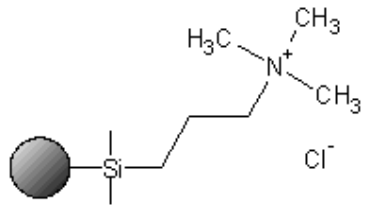
Ordering Information

PART NUMBER	DESCRIPTION	PACK SIZE
310-050M-001T	TELOS SCX 50mg/1ml SPE Columns	100
310-100M-001T	TELOS SCX 100mg/1ml SPE Columns	100
310-100M-003T	TELOS SCX 100mg/3ml SPE Columns	50
310-200M-003T	TELOS SCX 200mg/3ml SPE Columns	50
310-500M-003T	TELOS SCX 500mg/3ml SPE Columns	50
310-500M-006T	TELOS SCX 500mg/6ml SPE Columns	30
310-001G-006T	TELOS SCX 1g/6ml SPE Columns	30

TELOS Anion Exchange Silica-based SPE Columns

TELOS Anion Exchange Sorbents are used to extract acidic analytes with a negative charge (depending on pH conditions) from aqueous fluid samples. These sorbents can also be used with non-polar solvents.

TELOS SAX (Quaternary Amine)



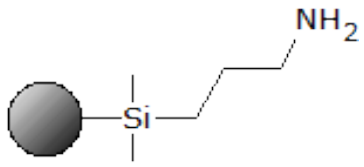
	Functional Group	Quaternary Amine (Chloride Counter Ion)
	Average Particle Size	50µm
	Pore Diameter	70Å
	pK_a	N/A
	Exchance Capacity	0.4meq/g
Analytes	Ionisable acidic analytes with pK range 2 - 6	
Matrix	Aqueous generally, can also be used with non-polar solvents for polar interactions	
Retention Mechanism	Primary: Strong Anion Exchange Secondary: Polar / Weak Cation Exchange	

Ordering Information

PART NUMBER	DESCRIPTION	PACK SIZE
400-050M-001T	TELOS SAX 50mg/1ml SPE Columns	100
400-100M-001T	TELOS SAX 100mg/1ml SPE Columns	100
400-100M-003T	TELOS SAX 100mg/3ml SPE Columns	50
400-200M-003T	TELOS SAX 200mg/3ml SPE Columns	50
400-500M-003T	TELOS SAX 500mg/3ml SPE Columns	50
400-500M-006T	TELOS SAX 500mg/6ml SPE Columns	30
400-001G-006T	TELOS SAX 1g/6ml SPE Columns	30

TELOS NH2 (Aminopropyl)

This sorbent can be used with aqueous sample matrices for the weak anion exchange of strongly acidic analytes or those with multiple acidic groups. The surface charge of the sorbent can be controlled by modifying the pH of the matrix, therefore allowing retention and elution of strongly acidic analytes that would otherwise be difficult to elute from a strong anion exchange sorbent.



	Functional Group	Aminopropyl
	Average Particle Size	50µm
	Pore Diameter	70Å
	pK_a	N/A
	Exchance Capacity	0.4meq/g
Analytes	Strong acidic analytes and those with multiple acidic groups	
Matrix	Aqueous generally, can also be used with non-polar solvents for polar SPE extractions	
Retention Mechanism	Primary: Weak Anion Exchange Secondary: Polar / Weak Cation Exchange	

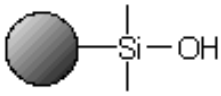
Ordering Information

PART NUMBER	DESCRIPTION	PACK SIZE
130-100M-001T	TELOS NH2 100mg/1ml SPE Columns	100
130-100M-003T	TELOS NH2 100mg/3ml SPE Columns	50
130-200M-003T	TELOS NH2 200mg/3ml SPE Columns	50
130-500M-003T	TELOS NH2 500mg/3ml SPE Columns	50
130-500M-006T	TELOS NH2 500mg/6ml SPE Columns	30
130-001G-006T	TELOS NH2 1g/6ml SPE Columns	30

TELOS Normal Phase (Polar) Silica-based SPE Columns

Clean-up of matrices based on non-polar solvents is achieved using normal phase (polar) SPE columns, such as silica and amino sorbents. They can either be used to retain the analytes of interest, or to remove polar interferences from the sample. Speciality sorbents like FLORISIL® (PR Grade) are popular choices when a different selectivity to that provided by silica-based sorbents is required.

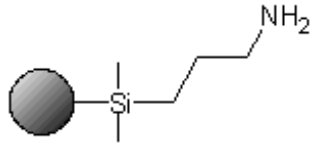
TELOS SILICA (Unmodified)

	**Functional Group**	Unmodified Silica
	Average Particle Size	50µm
	Pore Diameter	70Å
Analytes	Analytes with polar character	
Matrix	Non-aqueous / Non-polar solvents	
Retention Mechanism	Primary: Polar (Normal Phase)	

Ordering Information

PART NUMBER	DESCRIPTION	PACK SIZE
100-100M-001T	TELOS SILICA 100mg/1ml SPE Columns	100
100-100M-003T	TELOS SILICA 100mg/3ml SPE Columns	50
100-200M-003T	TELOS SILICA 200mg/3ml SPE Columns	50
100-500M-003T	TELOS SILICA 500mg/3ml SPE Columns	50
100-500M-006T	TELOS SILICA 500mg/6ml SPE Columns	30
100-001G-006T	TELOS SILICA 1g/6ml SPE Columns	30
100-002G-015T	TELOS SILICA 2g/15ml SPE Columns	20

TELOS NH2 (Aminopropyl)

	**Functional Group**	Aminopropyl
	Average Particle Size	50µm
	Pore Diameter	70Å
Analytes	Contain polar groups	
Matrix	Non-polar solvent	
Retention Mechanism	Primary: Polar	

Ordering Information

PART NUMBER	DESCRIPTION	PACK SIZE
130-100M-001T	TELOS NH2 100mg/1ml SPE Columns	100
130-100M-003T	TELOS NH2 100mg/3ml SPE Columns	50
130-200M-003T	TELOS NH2 200mg/3ml SPE Columns	50
130-500M-003T	TELOS NH2 500mg/3ml SPE Columns	50
130-500M-006T	TELOS NH2 500mg/6ml SPE Columns	30
130-001G-006T	TELOS NH2 1g/6ml SPE Columns	30

TELOS Florisil® PR Grade (Magnesium Silicate)

$Mg_3Si_4O_{10}(OH)_2$	**Functional Group**	Magnesium Silicate
	Average Particle Size	125-150µm
	Pore Diameter	70Å
Analytes	Analytes with polar character	
Matrix	Non-aqueous / Non-polar solvents	
Retention Mechanism	Primary: Polar (Normal Phase)	

Ordering Information

PART NUMBER	DESCRIPTION	PACK SIZE
150-500M-003T	TELOS FLORISIL 500mg/3ml SPE Columns	50
150-001G-006T	TELOS FLORISIL 1g/6ml SPE Columns	30

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