

TELEDYNE | Teledyne LABS

RediSep[®]

Consumables for Flash and Preparartive Chromatography



CHROMATOGRAPHY



Teledyne ISCO's reliable RediSep preparative chromatography products are designed to consistently produce high purity compounds. You'll enjoy fast, easy purification and scale-up from milligram to hundreds of grams.

Reliable and Reproducible

RediSep columns are precision-packed for high resolution and reproducibility. They feature a one-piece design with luer end fittings for quick, easy connection to Teledyne ISCO Combi*Flash®* and other chromatography systems. RediSep sets the standard in flash chromatography columns.

Versatile

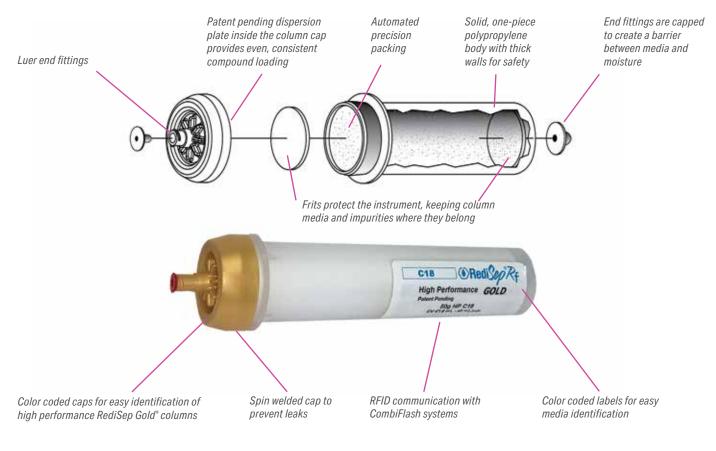
RediSep columns are available in 4 gram up to 3 kg column sizes allowing purification from 10 milligrams up to 300 grams. The enhanced product offering with high performance Gold and a variety of stationary phases expands the utility of RediSep. TLC plates makes method development easy.

RFID Confidence

Through RFID technology, the Combi*Flash* NextGen, EZ Prep, and Torrent[®] systems automatically detect the column type and size and programs a default method optimized for the RediSep column. Method automation reduces setup time and the potential for errors.

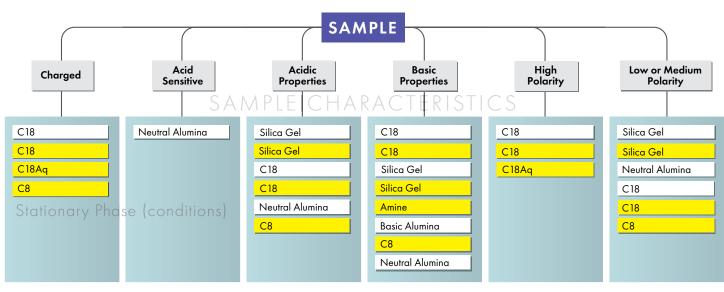
Safe

Extra thick walls on the RediSep columns and cartridges are pressure rated for safe operation. Machine welded end fittings ensure the column is able to withstand the pressure capability of modern flash systems and not leak valuable compound.



U.S. Patent # 7,008,541. EU Patent # 1,316,798.

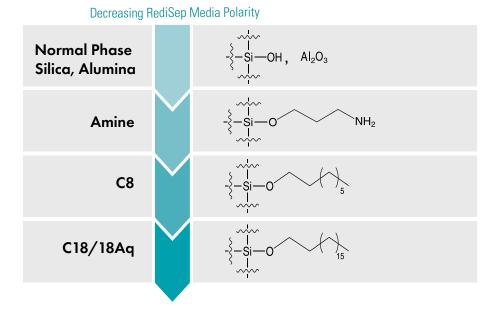
Column Media Selection Guide



40–60 µm irregular media RediSep columns.

20–40 µm spherical media RediSep Gold[®] high performance columns.

Stationary Phase Media





High Performance Flash Chromatography

Resolution with Speed

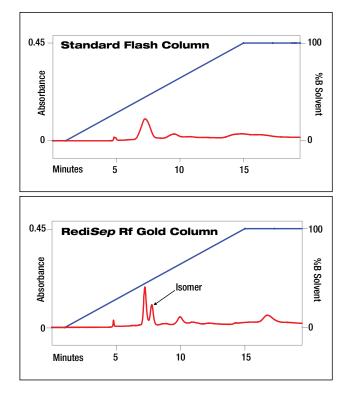
As a pioneer in flash chromatography, Teledyne ISCO continues to bring you the latest innovations to improve your productivity. RediSep Gold high performance flash columns deliver superior sample purity through the use of fine spherical silica gel (20–40 µm).

RediSep Gold spherical silica provides improved performance without increasing the back pressure. Spherical packing creates the best possible linear beds for even separations. Spherical silica is available bare, and bonded with C18, C18Aq, C8, and amine.

Gold Resolution $-\Delta$ Rf ≤ 0.1

Improve your resolution with smaller particles. Patented spherical flash media creates the benefit of tighter packing without an increase in back pressure.

- Provide twice the resolving power of typical disposable flash chromatography columns
- Separate difficult compounds with low ∆Rf, such as isomers or trace compounds
- Purify your tough compounds on a single column





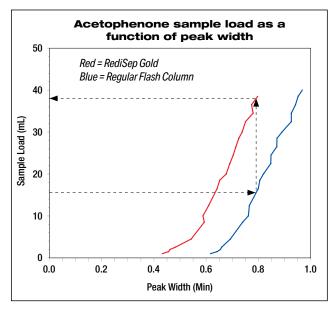
Run Conditions:

Column size:	40 g
Load:	.333 g (on 5 g cartridge)
Solvents:	Hexane & Ethyl Acetate
Flow rate:	40 mL/min
Run time:	19.4 min

For complete information, see Application Note AN70 at teledyneisco.com/en-us/chromatography/application-notes

Gold High Load

Take advantage of the extra resolution to load twice as much compound on the RediSep Gold column. Choose a smaller column size and save time and solvent.



Run Conditions:

Column size: 12 g RediSep Gold spherical silica column

	12 g competitor's irregular silica column
Loads:	0.02–0.80 g (0.2–7% load)
Solvents:	Hexane & Ethyl Acetate

See poster reprint "Spherical Silica Increases Loading Capacity" at teledyneisco.com/products/lcappnotes.asp for complete information

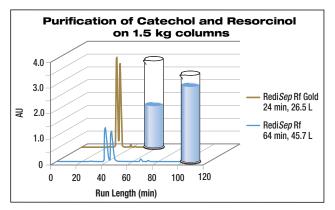
Solvent Savings by Going Green with Gold

Column Size	Easy Separation Gold RediSep (ΔCV>5) 20% Loading	Easy Separation (ΔCV>1) 10% LOADING
4 g	800 mg	400 mg
12 g	2.4 g	1.2 g
24 g	4.8 g	2.4 g
40 g	4.8 g 270 m 8.0 g 650 m	4.0 g
80 g	16.0 g	2 8.0 g
120 g	24 g 1.7L	12 g
220 g	44 g	22 g
330 g	66 g	33 g

Gold Speed – Δ Rf > 0.1

Take advantage of the sharper peaks provided by spherical media to shorten purification time. Convert your methods to Gold Speed at a click of a button with PeakTrak[®] software.

- Save up to 60% on time and 25% on solvents
- Separate silica sensitive compounds faster
- Dry compounds faster by collecting two-thirds the fraction volume.



Run Conditions:

Column size:	40 g
Load:	0.4 g (1% load)
Solvents:	Hexane & Ethyl Acetate
Flow rate:	40 mL/min, 80 mL/min

For complete information, see Application Note AN72 at teledyneisco.com/en-us/chromatography/application-notes



methods on Combi*Flash* systems with RFID.



You have loaded a Redit (The Gold Speed methor and a solvent savings up	is typically allow a time s	avings of up to 60%

Redi**Sep** Gold[®] Normal Phase Silica

RediSep Gold high performance flash columns deliver superior sample purity through the use of fine spherical silica gel (20–40 µm). RediSep Gold normal phase silica offers the capability to improve resolution and isolate difficult compounds such as isomers and impurities. Alternatively, the improved resolution can allow for faster run times or higher loads to save

taster run times or higher loads to so time and solvents.

-OH

Specifications:

- Reusability: Single use
- Particle size: 20–40 µm spherical
- Mesh size: 400-632
- Pore size: 60 Å
- Surface area m^2/g : 500 ±50
- Loading capacity: 0.1–1% Gold Resolution

1–10% Gold Speed

2–20% Gold High Load

RediSep Gold Normal Phase Silica Columns, 20–40 micron

Sample Load		Size	Qty/Pkg	Flow Rate (mL/min)	Catalog #
∆CV≤1	∆CV≥6			(
20 mg	0.8 g	4 g	14	18	69-2203-344
60 mg	2.4 g	12 g	14	30	69-2203-345
120 mg	4.8 g	24 g	10	35	69-2203-346
200 mg	8 g	40 g	10	40	69-2203-347
400 mg	16 g	80 g	6	60	69-2203-348
600 mg	24 g	120 g	6	85	69-2203-349
1.1 g	44 g	220 g	4	150	69-2203-359
1.65 g	66 g	330 g	3	200	69-2203-369
3.8 g	150 g	750 g	3	300	69-2203-427
7.5 g	300 g	1.5 kg	2	600	69-2203-428
15 g	600 g	3.0 kg	1	950	69-2203-529
35 g	1400 g	7.0 kg*	1	1000	69-2203-921

*Large column tubing kit required, #60-2207-420

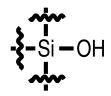


CombiFlash Torrent^{*} *scale-up purification system shown paired with a Foxy*^{*} *fraction collector.*

CHROMATOGRAPHY

Redi**Sep**[®] Silver Normal Phase Silica

RediSep Silver disposable flash columns are designed for allpurpose purifications, with high resolution extraction of organic compounds from natural products, and excellent reproducibility in flavors and food chemistry applications.



Specifications:

- Reusability: Single use
- Particle size: 40–63 µm irregular
- Mesh size: 230-400
- Pore size: 60 Å
- Surface area m^2/g : 500 ±50
- Loading capacity: 0.1–10%

RediSep Normal Phase Disposable Flash Columns, 40–60 micron

oad	Size	Qty/Pkg	Flow Rate (mL/min)	Catalog #
∆CV≥6			· ,	
0.4 g	4 g	20	18	69-2203-304
1.2 g	12 g	20	30	69-2203-312
2.4 g	24 g	15	35	69-2203-324
4 g	40 g	15	40	69-2203-340
8 g	80 g	12	60	69-2203-380
12 g	120 g	10	85	69-2203-320
12 g	125 g	6	200	69-2203-314
22 g	220 g	6	150	69-2203-422
33 g	330 g	4	200	69-2203-330
75 g	750 g	4	300	69-2203-275
150 g	1.5 kg	3	600	69-2203-277
300 g	3.0 kg	1	950	69-2203-527
700 g	7.0 kg*	1	1000	69-2203-922
	ACV≥6 0.4 g 1.2 g 2.4 g 4 g 12 g 12 g 12 g 22 g 33 g 75 g 150 g 300 g	ACV≥6 0.4 g 4g 1.2 g 12 g 2.4 g 24 g 4 g 40 g 4 g 40 g 12 g 120 g 12 g 120 g 12 g 220 g 33 g 330 g 75 g 750 g 1.5 kg 300 g 3.0 kg	ACV≥6 4 g 20 0.4 g 4 g 20 1.2 g 12 g 20 2.4 g 24 g 15 4 g 40 g 15 4 g 80 g 12 12 g 12 0 g 10 12 g 12 0 g 6 33 g 330 g 4 75 g 750 g 4 150 g 1.5 kg 3 300 g 3.0 kg 1	ACV≥6(mL/min) $0.4 g$ 4 g2018 $1.2 g$ 12 g2030 $2.4 g$ 12 g2030 $2.4 g$ 24 g15354 g40 g15408 g80 g126012 g120 g108512 g220 g615033 g330 g420075 g750 g4300150 g1.5 kg3600300 g3.0 kg1950

*Large column tubing kit required, #60-2207-420



Large Column Adapter accessory supports 750 g, 1.5 kg, and 3.0 kg columns (sizes based on silica capacity).

Sample Loading– ΔR_f or ΔCV ?

This catalog provides sample loading recommendations in ΔCV (column volumes). Here's how:

 ΔR_f values are inversely proportional to the elution time of a component from a column as shown by:

$$CV = 1/R_{f}$$

• ΔCV can be determined using the following formula:

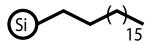
$$\Delta CV = 1/R_{f1} - 1/R_{f2}$$

• ΔCV is a better predictor for cartridge separations

Greater sample loads are possible with easy separations, or those with a $\Delta CV \ge 6$. As the ΔCV approaches ≤ 1 , the separation becomes more difficult, necessitating lesser sample loading on the column or choosing a RediSep Gold high resolution column.



RediSep Gold C18 Reversed-phase columns are packed with $20-40 \ \mu m$ spherical bonded silica, providing improved separation. Achieve near prep-HPLC results with greater sample recovery to easily purify up to gram-scale on your flash system. The end-capped C18 chains allow up to 20 separations at pH 10 without degrading the silica.



Specifications:

- Reusability: 20 runs (average)
- Particle size: 20–40 µm spherical
- Mesh size: 400-632
- Pore size: 100 Å
- Surface area m^2/g : 300 ±50
- Carbon content: 15% ±2
- Endcapped: Yes
- Loading capacity: 0.1–2%

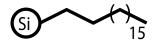
RediSep Gold C18 Columns 20-40 micron

Sample	Load	Size	Qty/Pkg (mL/min)	Flow Rate	Catalog #
∆CV≤1	∆CV≥6		,,		
5.5 mg	110 mg	5.5 g	2	18	69-2203-328
15.5 mg	310 mg	15.5 g	1	30	69-2203-334
30 mg	600 mg	30 g	1	35	69-2203-335
50 mg	1.0 g	50 g	1	40	69-2203-336
100 mg	2 g	100 g	1	60	69-2203-337
150 mg	3 g	150 g	1	85	69-2203-338
275 mg	5.5 g	275 g	1	150	69-2203-339
415 mg	8.3 g	415 g	1	200	69-2203-341
0.95 g	19 g	950 g	1	180	69-2203-492
1.9 g	38 g	1.9 kg	1	260	69-2203-493
3.8 g	76 g	3.8 kg	1	360	69-2203-528
8.6 g	172 g	8.6 kg	1	850	69-2203-900





RediSep Gold C18Aq is specifically designed for highly aqueous conditions. Monofunctionalized C18 bonding is interspersed with hydrophilic ligands to prevent phase collapse in high aqueous conditions. RediSep Gold C18Aq should be used in separations requiring 0-50% organic. These columns offer increased retention through increased polar interactions and the ability to use weaker solvent system. This is useful for highly polar, water soluble compounds such as dyes, glycopeptides, and nucleotides.



Specifications:

- Reusability: 20 runs (average)
- Particle size: 20–40 µm spherical
- Mesh size: 400-632
- Pore size: 100 Å
- Surface area $m^2/g: 300 \pm 50$
- Carbon content: 11% ±2
- Endcapped: Yes
- Loading capacity: 0.1–2%

RediSep Gold C18Aq Columns 20–40 micron

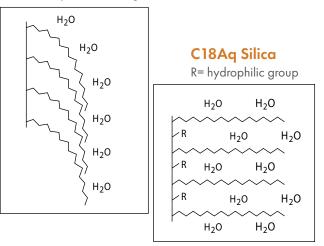
Sample Load		Size	Qty/Pkg	Flow Rate (mL/min)	Catalog #
∆CV≤1	∆CV≥6			()	
5.5 mg	110 mg	5.5 g	2	18	69-2203-558
15.5 mg	310 mg	15.5 g	1	30	69-2203-559
30 mg	600 mg	30 g	1	35	69-2203-560
50 mg	1.0 g	50 g	1	40	69-2203-561
100 mg	2 g	100 g	1	60	69-2203-562
150 mg	3 g	150 g	1	85	69-2203-563
275 mg	5.5 g	275 g	1	150	69-2203-564
415 mg	8.3 g	415 g	1	200	69-2203-565
1.9 g	38 g	1.9 kg	1	260	69-2203-567
3.8 g	76 g	3.8 kg	1	360	69-2203-568
8.6 g	172 g	8.6 kg	1	850	69-2203-918



Shown on a CombiFlash NextGen 300+ flash system.

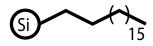
C18 Silica

Phase Collapse/Dewetting





RediSep C18 reversed-phase columns save time and money for the purification of medium to high polarily compounds, as well as ionic compounds. Packed with C18-derivatized silica, RediSep Reversed-phase columns provide reproducible, high-capacity purification without the cost and complexity of prep-HPLC.



Specifications:

- Reusability: 20 runs (average)
- Particle size: 40–63 µm irregular
- Mesh size: 230-400
- Pore size: 60 Å
- Surface area m^2/g : 500 ±50
- Carbon Content: >17%
- Endcapped: Yes
- Loading capacity: 0.1–2%

RediSep C18 Columns 40–60 micron

Sample	Load	Size	Qty/Pkg	Flow Rate (mL/min)	Catalog #
∆CV≤1	∆CV≥6				
4.3 mg	86 mg	4.3 g	2	18	69-2203-410
13 mg	260 mg	13 g	1	30	69-2203-411
26 mg	520 mg	26 g	1	35	69-2203-412
43 mg	860 mg	43 g	1	40	69-2203-413
86 mg	1.72 g	86 g	1	60	69-2203-416
130 mg	2.6 g	130 g	1	85	69-2203-414
240 mg	4.8 g	240 g	1	150	69-2203-418
360 mg	7.2 g	360 g	1	200	69-2203-415



Shown on a CombiFlash[®] EZ Prep Hybrid Flash/Prep system.

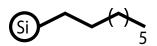
Storage Instructions for All C8 and C18 Columns

Proper storage will allow RediSep C18, RediSep Gold C8, RediSep Gold C18, and RediSep Gold C18Aq columns to be reused:

- Never allow the column to dry out after use. Turn off the air purge on instrument.*
- Remove all organic modifiers by flushing the column with 3 column volumes of 50% methanol or acetonitrile in water.
- Store the column in 70-90% methanol or acetonitrile in water with end caps in place.
- *CombiFlash® NextGen, EZ Prep, and Torrent systems will turn off the column air purge as needed by reading the column RFID tag.



RediSep Gold C8 reversed-phase columns are packed with 20–40 µm spherical bonded silica, providing improved separation. Achieve near prep-HPLC results with greater sample recovery to easily purify up to gram-scale on your Flash system. Increased pore size optimized for purification of larger molecules like peptides and proteins.



Specifications:

- Reusability: 20 runs (average)
- Particle size: 20–45 µm spherical
- Mesh size: 320-632
- Pore size: 200 Å
- Surface area m2/g: 150 ±50
- Carbon content: 4.5% ±2
- Endcapped: Yes
- Loading capacity: 0.1–2%

RediSep C8 Columns 20–40 micron

20-40							
Sample	Load	Size	Qty/Pkg	Flow Rate (mL/min)	Catalog #		
∆CV≤1	∆CV≥6						
15.5 mg	310 mg	15.5 g	1	30	69-2203-710		
30 mg	600 mg	30 g	1	35	69-2203-711		
50 mg	1.0 g	50 g	1	40	69-2203-712		
100 mg	2 g	100 g	1	60	69-2203-713		
150 mg	3 g	150 g	1	85	69-2203-714		
8.6 g	172 g	8.6 kg	1	850	69-2203-919		



New Alternate Stationary Phase for Peptide and Protein Purification!

Our 200 Å C8 media offers larger pore silica for better resolution and peak shape in the purification of peptides and proteins. Larger molecules such as proteins and peptides cannot fully enter smaller pores, limiting the exterior surface area available for molecule to stationary phase interaction.

The C8 modified silica offers an alternative selectivity suited for larger molecules with increasing hydrophobicities, improving both resolution and peak shape.



RediSep Gold Amine columns can be used in either normal or reversed-phase conditions for the purification of compounds with basic properties by interacting with the hydrogen bonds. Functionalized amine silica protects the acidic silanol groups to result in sharper peaks and purity.

Useful in the separation of drug intermediates such as those with adenine, pyridine, or aniline groups. Use bonded amine to purify 2°, 3°, and heterocyclic amines without using dichloromethane. Amine media also eliminates the need to add a mobile phase modifier such as TEA, which reduces the time required to remove solvent from purified fractions.

Use caution when purifying aldehydes and ketones which may react with amine side chains to form imines. Test a small amount on a small column.



Specifications:

- Reusability: 20 runs (average)
- Particle size: 20-40 µm spherical
- Mesh size: 400-632
- Pore size: 100 Å
- Surface area m²/g: 300 ±50
- Loading capacity: 0.1–2%

RediSep Rf Gold Amine Columns 20–40 micron

Sample Load		Size	Qty/Pkg (mL/min)	Flow Rate	Catalog #
∆CV≤1	∆CV≥6		, ,		
5.5 mg	110 mg	5.5 g	2	18	69-2203-504
15.5 mg	310 mg	15.5 g	1	30	69-2203-505
30 mg	600 mg	30 g	1	35	69-2203-506
50 mg	1.0 g	50 g	1	40	69-2203-507
100 mg	2 g	100 g	1	60	69-2203-508
150 mg	3 g	150 g	1	85	69-2203-509
275 mg	5.5 g	275 g	1	150	69-2203-510
8.6 g	172 g	8.6 kg	1	850	69-2203-920



Shown on a CombiFlash NextGen flash system.

Storage Instructions for Amine Columns

Proper storage will allow Amine columns to be reused:

- Do not allow the column to dry out after first use. Turn off the air purge on instrument.*
- If run solvents are immiscible with storage solvents, wash the column with an intermediate solvent.
- Remove all organic modifiers or strong organic solvents by flushing the column with 3 column volumes of 80% acetonitrile in water or 100% isopropanol.
- Store the column in flush solvent with end caps in place.
- *CombiFlash® NextGen, EZ Prep, and Torrent will turn off the column air purge as needed by reading the column RFID tag.

CHROMATOGRAPHY



Single use alumina columns run under normal phase conditions and offer different selectivity to silica. Neutral alumina columns are useful when samples are acid sensitive and prone to degradation on normal phase silica gel.

Choose basic alumina to purify basic compounds without basic modifiers such as TEA or ammonium hydroxide. This avoids solvent swapping, washing the chromatography system, or contaminating subsequent runs.

Al_2O_3

Specifications:

- Reusability: Single use
- Particle size: 40–63 µm irregular
- Mesh size: 230-400
- Pore size: 60 Å
- Surface area m²/g: 200 ±50
- pH: Neutral 7.0 Basic 9.7 ±0.3
- Loading capacity: 0.5-4%

RediSep Alumina Columns-Neutral

Sample Load		Size	Qty/Pkg Rate	Flow (mL/min)	Catalog #
∆CV≤1	∆CV≥6			()	
40 mg	320 mg	8 g	20	18	69-2203-440
120 mg	960 mg	24 g	20	30	69-2203-441
240 mg	1.92 g	48 g	15	35	69-2203-442
400 mg	3.2 g	80 g	15	40	69-2203-443
800 mg	6.4 g	160 g	12	60	69-2203-446

RediSep Alumina Columns-Basic

Sample Load		Size	Qty/Pkg Rate	Flow (mL/min)	Catalog #
∆CV≤1	∆CV≥6				
40 mg	320 mg	8 g	20	18	69-2203-450
120 mg	960 mg	24 g	20	30	69-2203-451
240 mg	1.92 g	48 g	15	35	69-2203-452
400 mg	3.2 g	80 g	15	40	69-2203-453
800 mg	6.4 g	160 g	12	60	69-2203-456



Redi**Sep[®] Solid Load Cartridges**

RediSep solid load cartridges improve the resolution of the compound and eliminate reaction byproducts when compared to liquid injection techniques. Prepare pre-filled solid load cartridges by pipetting the dissolved sample onto the top of the cartridge. Prepare empty solid load cartridges by filling the cartridge with a slurry mixture of the dissolved sample and supporting media. For optimal benefits, remove the solvent by vacuum before placing the cartridge on the purification system.

Empty Disposable Sample Load Cartridges

Size	Qty	Catalog #		
5 g	30	69-3873-235		
25 g	30	69-3873-240		
65 g	12	69-3873-225		
260 g	6	69-3873-201		
750 g	4	69-3873-224		

Prepacked Disposable Sample Load Cartridges

	Normal Phase Silica	
Size	Qty	Catalog #
2.5 g	20	69-3873-238
5 g	20	69-3873-236
12 g	15	69-3873-243
25 g	15	69-3873-241
32 g	12	69-3873-310
65 g	4	69-3873-226

Self-pack Flash Column Frits

Size	Catalog #
Package of 150 frits, 5 gram	60-5237-052
Package of 100 frits, 25 gram	60-5237-053
Package of 75 frits, 65 gram	60-5237-054

RediSep Bulk Media

Media	Particle	Container Size	Catalog #
Gold Silica	20–40 µm spherical	90 kg	60-2207-419

Adjustable Solid Load Cartridge Cap (SLCC)

Size Catalog

For use with RediSep sample load cartridges.

Fits 2.5 and 5 gram sample load cartridges. For use on Combi <i>Flash</i> ° systems	60-5237-047
Fits 12 and 25 gram sample load cartridges. For use on all Combi <i>Flash</i> ® and Torrent systems	60-5237-048
Fits 32 and 65 gram sample load cartridges. For use on all Combi <i>Flash</i> ° and Torrent systems	60-5237-044
Fits 130 and 260 gram sample load cartridges. For use on Combi <i>Flash</i> ° Torrent systems	60-5247-008
Fits 375 and 750 gram sample load cartridges. For use on Combi <i>Flash</i> ° Torrent systems	60-5247-009





Teledyne ISCO has an extensive library of application notes, posters, and paper reprints. Some of the most requested documents are listed below.

Silica

AN70, Higher Resolution Results with RediSep Gold[®] Silica Columns

Poster Reprint, Purification of Carbohydrates by MPLC

Poster Reprint, Spherical Silica Increases Loading Capacity

C18

AN49, Improvements in RP MPLC as Alternative to Prep HPLC

AN51, RediSep C18 Column–Purification of Peptides

AN55, RediSep C18 Column—Purification of Low-solubility Polar Heterocycles

AN58, Non-Aqueous Reverse Phase with RediSep Gold® C18

Amine

AN31, RediSep Amine Column—Purification of high pKa Organic Compounds Case Study 1

AN99, Use of RediSep Gold® Amine Columns in the Weak Ion Exchange Mode

Poster Reprint, Advanced Topics RediSep Specialty Media

C18Aq

AN76, RediSep Gold® C18Aq for Highly Aqueous Mobile Phases

AN95, Desalting Samples with RediSep Gold® C18Aq Columns

AN97, Removal of Non-volatile Solvents with RediSep Gold[®] C18Aq Columns

Solid Load Cartridges

AN15, Dry Samples Improve Resolution in Normal Phase Flash Chromatography

Our full library is available online at www.teledynelabs.com/documents

Detection Techniques

AN22, Expanded Compound Wavelength Detection with UV-Vis

AN80, Evaporative Light Scattering Detectors

AN81, CombiFlash® All-wavelength Collection

AN90, Why Use ELSD if My Compound Absorbs UV?

AN93, Information Rich Flash Chromatography I Mass Directed Fractionation

AN94, Information Rich Flash Chromatography II All-Wavelength Collection and Purity Measurement

AN102, Mass-directed Purification of Steroids with APCI and Purlon

Peptides

ANO1, Peptide Separations Using Reverse Phase RediSep Columns

AN103, Save Time and Money by Purifying Peptides Yourself

AN106, Purification of a Peptide ACE Inhibitor Using the ACCQPrep HP125 or HP150

AN109, The Effect of Reverse Phase Chain Length on Peptide Purification

AN113, Reverse Phase Column Choice Affects Peptide Purity

AN115, Purification of Peptide-Peptoid Hybrids

General Information

AN20, Acetone as an Alternative to Ethyl Acetate

TN60, Use RediSep Columns Everywhere!

AN 118, HPLC to Flash

AN 119 Generate Reverse Phase Flash Focused Gradients at Lightning Speed

AN 121, Scaling Up Methods to Larger RediSep Gold[®] Columns.

RediSep[®] Prep HPLC and SFC Columns

Maximize your Preparative HPLC and SFC performance

When you need the highest purity compound, your first choice should be RediSep Prep columns. RediSep Prep columns are specifically designed for both high performance preparative liquid chromatography (Prep HPLC) and supercritical fluid chromatography (Prep SFC).

Maximum purity

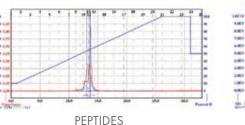
The columns are packed with 5µm particles for maximum purity.

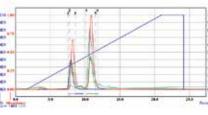
Easy method development

Quickly optimize your method using minimal sample with RediSep Prep HPLC analytical columns.

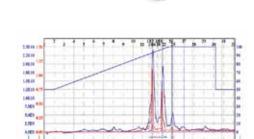
Specifications:

- Particle size: 5 µm spherical
- Mesh size: 400-632
- Pore size: 100 Å C18, C18Aq, Silica (200 Å C8)
- Surface area m²/g: 300 ±50
- Endcapped: Yes (Except silica)
- Carbon: 16.0–18.0% (C18) 10.0–12.0% (C18Aq) 4.0–6.0% (C8)
- Loading capacity: 0.1–2%





SMALL MOLECULES



NATURAL PRODUCTS

RediSep Prep HPLC/SFC Columns

Diamete	er	10 mm	20	mm	30	mm	50 r	nm
Media Lengtl	n <u>150 m</u> r	m 250 mm	150 mm	250 mm	150 mm	250 mm	150 mm	250 mm
C18, 100Å, 5µ	69-2203-	808 69-2203-809	69-2203-810	69-2203-811	69-2203-812	69-2203-813	69-2203-814	69-2203-815
C18Aq, 100Å, 5µ	69-2203-	816 -	69-2203-818	-	69-2203-820	-	69-2203-822	69-2203-823
C18-WCX, 100Å, 5µ	-	-	69-2203-876	-	69-2203-877	-	-	-
C8, 200Å, 5µ	69-2203-	857 -	69-2203-858	69-2203-859	69-2203-860	69-2203-861	69-2203-862	69-2203-863
Diamino, 100Å, 5µ	-	-	69-2203-881	-	69-2203-882	-	-	-
Diol, 100Å, 5µ	-	-	69-2203-885	-	69-2203-886	-	-	-
4-Ethyl Pyridine, 100Å	, 5µ -	-	69-2203-870	-	69-2203-871	-	-	-
PEI, 100Å, 5µ	-	-	69-2203-890	-	69-2203-891	-	-	-
Silica, 100Å, 5µ	69-2203-	824 -	69-2203-826	69-2203-827	69-2203-828	69-2203-829	-	69-2203-831



RediSep[®] Prep Guard Columns

Protect Your Column Investment

RediSep Prep guard cartridges help to maximize the practical lifetime of your valuable preparative column investment. Over time, the performance of a preparative column declines with the accumulation of impurities and particles onto the inlet frit and the head of the column. An inexpensive guard column prevents these impurities and particles from reaching your valuable prep column. Once you begin to see increased backpressure or changes in chromatography (such as peak broadening or changes in retention times), switch out the guard column to see improved performance.

RediSep Prep Guard Cartridges

	•	
Media	20 mm Catalog #	30 mm Catalog #
C18, 100Å, 10µ	69-2203-874	69-2203-946
C18Aq, 100Å, 10µ	69-2203-875	69-2203-947
C18-WCX, 100Å, 10µ	69-2203-879	-
C8, 200Å, 10µ	69-2203-880	69-2203-945
Diamino, 100Å, 10µ	69-2203-884	-
Diol, 100Å, 10µ	69-2203-888	-
4-Ethyl Pyridine, 100Å, 10µ	69-2203-873	-
ΡΕΙ, 100Å, 10μ	69-2203-893	-
Silica, 100Å, 10µ	69-2203-894	69-2203-948

RediSep Prep Guard Hardware

Description	20 mm Catalog #	30 mm Catalog #
RediSep Prep Guard Cartridge Holder (20 or 30 mm) x 10 mm	69-2203-889	69-2203-943
O-ring, PTFE encapsulated for guard holder	69-2203-895	69-2203-944

RediSep[®] Prep Analytical Columns Method Development Columns

Matching analytical HPLC/SFC and UHPLC column media to our RediSep Prep columns allows for method development and column screening on analytical HPLC/SFC or UHPLC systems and method transfer to our RediSep Prep columns on preparative systems like the ACCQPrep HP150, ACCQPrep SFC or even to the CombiFlash NextGen. For more information see our paper: "Overview of Analytical-to-Preparative Liquid Chromatography Method Development."

Analytical HPLC/SFC Columns (4.6mm X 150 mm)

Media	Catalog #
C18, 100Å, 5µ	69-2203-800
C18Aq, 100Å, 5µ	69-2203-801
C18-WCX, 100Å, 5µ	69-2203-878
C8, 200Å, 5µ	69-2203-856
Diamino, 100Å, 5µ	69-2203-883
Diol, 100Å, 5µ	69-2203-887
4-Ethyl Pyridine, 100Å, 5µ	69-2203-872
PEI, 100Å, 5μ	69-2203-892
Silica, 100Å, 5µ	69-2203-802

RediSep UHPLC Columns (2mm X 50 mm)

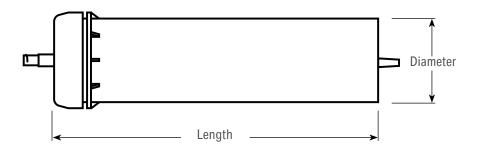
I	· · · · ·
Size	Catalog #
C8, 200 Å, 2.8 µ	69-2203-853
C18, 100 Å, 2.8 µ	69-2203-854
C18Aq, 100 Å, 2.8 µ	69-2203-855

Reference these Application Notes for more information

AN 118, HPLC to Flash

AN 119 Generate Reverse Phase Flash Focused Gradients at Lightning Speed

RediSep[®] Column Dimensions



Column Bed Dimensions					
Size	Diameter	Length			
grams	in. cm	in.	cm		
4	0.495 1.257	2.418	6.412		
12	0.768 1.950	2.947	7.485		
24	0.89 2.260	4.26	10.820		
40	1.065 2.705	4.99	12.675		
80	1.25 3.175	7.844	19.923		
120	1.456 3.698	8.6	21.844		
125	2.421 6.149	3.25	8.255		
220	2.064 5.243	7.43	18.872		
330	2.427 6.165	8.627	21.913		
750*	3.016 7.661	12.726	32.324		
1500*	4.04 10.262	14.292	36.302		
3000*	5.065 12.857	16.250	14.275		

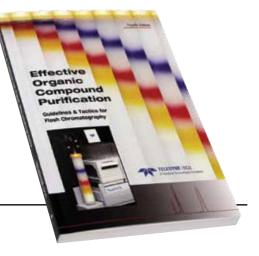
Column Bed Dimensions

* Inlet and outlet diameters are larger. Generally not directly compatible with competitive systems, see TN60: "Use RediSep Columns Everywhere!" for more details.

Solid Load Cartridge Bed Dimensions (Length approximate when filled to stated capacity)

reengin app				apacity
Size	Diam	eter	Leng	th
grams	in.	cm	in.	cm

grams	in.	cm	in.	cm	
5	0.613	1.557	2.01	5.105	
25	1.046	2.657	3.35	8.509	
65	1.25	3.175	7.25	18.415	
270*	2.42	6.147	7.48	19.000	
750*	4.025	10.224	6.33	16.078	



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Visit <u>www.teledyneisco.com/chromatography/effective-organic-compound-</u> purification-handbook-request

Get the most out of your columns with these Teledyne ISCO products

ACCQPrep[®] HP150 Preparative HPLC System

- Flow rates from 1 to 150 mL/min allow development of Prep methods directly on the system without the need for pump head changes
- Operating pressure up to 6000 psi
- Choice of UV or UV-Vis plus ELSD and MS options





CombiFlash[®] EZ Prep Hybrid Flash/Prep System

- Up to 3500 psi (240 bar) and 200 mL/min
- Run Prep HPLC columns up to 50 mm in diameter (including 5 μm particle diameter)
- Flash purification for 10 mg to 33 g followed by final compound purification on Prep HPLC columns
- UV, UV-Vis, ELSD, and MS detection options available
- Automatically switch between normal and reverse phase solvents

CombiFlash® NextGen Flash Chromatography System

- Driven by intuitive, powerful PeakTrak® software
- Smallest footprint of any automated flash system
- Real time and Post Run Spectral Display
- RFID technology for columns and racks
- UV, UV-Vis, ELSD, and MS detection options available



CombiFlash Torrent[®] Scale-up Flash Purification System

- Purify 0.5 to 1400 grams in a single run
- Up to 1 liter/minute at 100 psi
- Versatile sample, solvent, fraction, and waste options
- Fully-grounded solvent path for safety
- Easily scale up methods from CombiFlash or CombiFlash NextGen

PurIon Mass Spectrometer

- Fractionate on target mass ion(s) or mass range
- Real time and post run spectral data display
- Quickly switch between ESI and APCI ionization probes
- Choose the model that meets your needs
 - Purlon S: 50–1200 Dalton range, auto-switching ionization polarity
 - Purlon L: 50–2000 Dalton range, with auto-switching ionization polarity



Choosing a Column Size

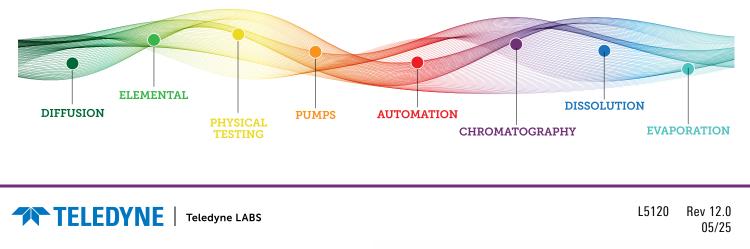
RediSep[®] Flash Column Load **Difficult** separation Column Easy separation Easy separation <u>(6>∆CV≥1):</u> Size Gold RediSep $(\Delta CV \leq 1)$: (∆CV≥6): 10% loading 1% loading 20% loading 800 mg 400 mg 4 g 40 mg 12 g 2.4 g 1.2 g 120 mg 24 g 4.8 g 2.4 g 240 mg 400 mg 40 g 8.0 g 4.0 g 80 g 16.0 g 8.0 g 800 mg 120 g 24 g 1.2 g 12 g 2.2 g 220 g 44 g 22 g 330 g 66 g 33 g 3.3 g

Redi**Sep**[®] Prep

Columns Loading and Flow Rate Guide Based on 5µ particle size columns

		v					
ID (mm)	Length (mm)	Grams of Media	Loading Range Reverse Phase	Loading Range Normal Phase	Optimum Flow HPLC	Rate (mL/min) SFC	Approx. Column Volume (mL)
4.6	150	1.5	1.5–15 mg	15—150 mg	1.0	3.0	1.6
10	150	7	7—70 mg	70—100 mg	4.7	14.1	7.7
10	250	12	12—120 mg	120 mg—1.2 g	4.7	14.1	12.8
20	150	28	28–280 mg	280 mg–2.8 g	18.9	56.7	30.6
20	250	47	47–470 mg	470 mg-4.7 g	18.9	56.7	51.1
21.2	150	32	32–320 mg	320 mg–3.2 g	21.2	63.6	34.4
21.2	250	53	53–530 mg	530 mg–5.3 g	21.2	63.6	57.3
30	150	64	64–640 mg	640 mg-6.4 g	42.5	127.5	68.9
30	250	106	106–1060 mg	1.1–11 g	42.5	127.5	114.9
50	150	177	177–1770 mg	1.7—17 g	118.1	354.3	191.4
50	250	295	295–2950 mg	2.9–29 g	118.1	354.3	319.1

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