

NUCLEOSIL®

- Spherical porous silica
- Wide range of bonded phases
- Excellent mechanical stability
- Hichrom high efficiency

NUCLEOSIL®, a classical silica manufactured by Macherey-Nagel GmbH & Co. KG, is available in a wide range of pore sizes. NUCLEOSIL 100Å and 120Å have similar relative retention characteristics. NUCLEOSIL 100Å has the greater capacity whilst the 120Å material exhibits the lower column back pressure. The wide pore NUCLEOSIL 300Å silica is used as the base material for the reversed-phase bioanalytical columns. NUCLEOSIL 100-5C18 AB was the first of the newer generation NUCLEOSIL materials which include the HD high density phases (please enquire for further details), NUCLEOSIL PROTECT 1 and Nautilus, for use with up to 100% aqueous eluents (see p.37).

NUCLEOSIL Silicas

Material	Pore Size (Å)	Surface Area (m ² /g)	Particle Size (µm)
NUCLEOSIL 100	100	350	3, 5, 7, 10
NUCLEOSIL 120	120	200	3, 5, 7, 10
NUCLEOSIL 300	300	100	5, 7, 10

NUCLEOSIL Phases

NUCLEOSIL Phase	Functional Group	Pore Size (Å)	Particle Size (µm)	Carbon Load (%)	Endcapped
C18	Octadecyl	100	3, 5, 7, 10	15	Yes
		120	3, 5, 7, 10	11	Yes
		300	5	6.5	Yes
C18 AB	Octadecyl, crosslinked	100	5	25	Yes
C8	Octyl	100	5, 7, 10	8.5	No
		120	3, 5, 7, 10	6.5	No
		300	5	3	No
C4	Butyl	300	5	2	Yes
C2	Dimethyl	100	7	3.5	No
Phenyl	Phenyl	100	5, 7	8	No
		120	5, 7	6.5	No
CN	Cyano	100	5, 10	5	No
		120	7		
NH ₂	Amino	100	5	3.5	No
		120	7		
NO ₂	Nitro	100	5	4.5	No
OH	Diol	100	5, 7	5	No
SA	Sulphonic acid	100	5, 10	6.5	No
SB	Quaternary ammonium	100	5, 10	10	No

Ordering Information – NUCLEOSIL 100Å – Hichrom Manufactured Columns

Microbore (1.0 – 2.1mm i.d.) Columns

Please contact Hichrom for further details of 1.0mm and 2.1mm i.d. NUCLEOSIL 100Å columns.

Medium Bore (3.2mm i.d.) Columns

NUCLEOSIL Phase	Column Dimensions ¹ (mm)				Guard Cartridges ^{2,3} (For 3.2mm i.d. Columns)
	50 x 3.2	100 x 3.2	150 x 3.2	250 x 3.2	
3µm					
100 3 Silica	NC100-3-50AS	NC100-3-100AS	NC100-3-150AS	NC100-3-250AS	NC100-3-10C5
100 3 C18	NC100-3C18-50AS	NC100-3C18-100AS	NC100-3C18-150AS	-	NC100-3C18-10C5
5µm					
100 5 Silica	NC100-5-50AS	NC100-5-100AS	NC100-5-150AS	NC100-5-250AS	NC100-5-10C5
100 5 C18	NC100-5C18-50AS	NC100-5C18-100AS	NC100-5C18-150AS	NC100-5C18-250AS	NC100-5C18-10C5
100 5 C8	NC100-5C8-50AS	NC100-5C8-100AS	NC100-5C8-150AS	NC100-5C8-250AS	NC100-5C8-10C5
100 5 CN	NC100-5CN-50AS	NC100-5CN-100AS	NC100-5CN-150AS	NC100-5CN-250AS	NC100-5CN-10C5
100 5 NH ₂	NC100-5NH-50AS	NC100-5NH-100AS	NC100-5NH-150AS	NC100-5NH-250AS	NC100-5NH-10C5
100 5 NO ₂	NC100-5NO-50AS	NC100-5NO-100AS	NC100-5NO-150AS	NC100-5NO-250AS	NC100-5NO-10C5
100 5 SA	NC100-5SA-50AS	NC100-5SA-100AS	NC100-5SA-150AS	NC100-5SA-250AS	NC100-5SA-10C5
100 5 SB	NC100-5SB-50AS	NC100-5SB-100AS	NC100-5SB-150AS	NC100-5SB-250AS	NC100-5SB-10C5
100 5 C18 AB	NC100-5C18AB-50AS	NC100-5C18AB-100AS	NC100-5C18AB-150AS	NC100-5C18AB-250AS	NC100-5C18AB-10C5

¹ Other column dimensions available – please enquire

² 5/pk - Use with free-standing holder HI-161 and column coupler HI-081 – see p. 20

³ Starter kits also available – see p. 21

Ordering Information – NUCLEOSIL® 100Å – Hichrom Manufactured Columns (continued)

Analytical (4.0mm i.d.) Columns

NUCLEOSIL Phase	Column Dimensions ¹ (mm)				Guard Cartridges ^{2,3} (For 4.0mm i.d. Columns)
	50 x 4.0	100 x 4.0	150 x 4.0	250 x 4.0	
3µm					
100 3 Silica	NC100-3-50AF	NC100-3-100AF	NC100-3-150AF	NC100-3-250AF	NC100-3-10C5
100 3 C18	NC100-3C18-50AF	NC100-3C18-100AF	NC100-3C18-150AF	NC100-3C18-250AF	NC100-3C18-10C5
5µm					
100 5 Silica	NC100-5-50AF	NC100-5-100AF	NC100-5-150AF	NC100-5-250AF	NC100-5-10C5
100 5 C18	NC100-5C18-50AF	NC100-5C18-100AF	NC100-5C18-150AF	NC100-5C18-250AF	NC100-5C18-10C5
100 5 C8	NC100-5C8-50AF	NC100-5C8-100AF	NC100-5C8-150AF	NC100-5C8-250AF	NC100-5C8-10C5
100 5 CN	NC100-5CN-50AF	NC100-5CN-100AF	NC100-5CN-150AF	NC100-5CN-250AF	NC100-5CN-10C5
100 5 NH2	NC100-5NH-50AF	NC100-5NH-100AF	NC100-5NH-150AF	NC100-5NH-250AF	NC100-5NH-10C5
100 5 NO2	NC100-5NO-50AF	NC100-5NO-100AF	NC100-5NO-150AF	NC100-5NO-250AF	NC100-5NO-10C5
100 5 SA	NC100-5SA-50AF	NC100-5SA-100AF	NC100-5SA-150AF	NC100-5SA-250AF	NC100-5SA-10C5
100 5 SB	NC100-5SB-50AF	NC100-5SB-100AF	NC100-5SB-150AF	NC100-5SB-250AF	NC100-5SB-10C5
100 5 C18 AB	NC100-5C18AB-50AF	NC100-5C18AB-100AF	NC100-5C18AB-150AF	NC100-5C18AB-250AF	NC100-5C18AB-10C5

Analytical (4.6mm i.d.) Columns

NUCLEOSIL Phase	Column Dimensions ¹ (mm)				Guard Cartridges ^{2,3} (For 4.6mm i.d. Columns)
	50 x 4.6	100 x 4.6	150 x 4.6	250 x 4.6	
3µm					
100 3 Silica	NC100-3-50A	NC100-3-100A	NC100-3-150A	NC100-3-250A	NC100-3-10C5
100 3 C18	NC100-3C18-50A	NC100-3C18-100A	NC100-3C18-150A	-	NC100-3C18-10C5
5µm					
100 5 Silica	NC100-5-50A	NC100-5-100A	NC100-5-150A	NC100-5-250A	NC100-5-10C5
100 5 C18	NC100-5C18-50A	NC100-5C18-100A	NC100-5C18-150A	NC100-5C18-250A	NC100-5C18-10C5
100 5 C8	NC100-5C8-50A	NC100-5C8-100A	NC100-5C8-150A	NC100-5C8-250A	NC100-5C8-10C5
100 5 CN	NC100-5CN-50A	NC100-5CN-100A	NC100-5CN-150A	NC100-5CN-250A	NC100-5CN-10C5
100 5 NH2	NC100-5NH-50A	NC100-5NH-100A	NC100-5NH-150A	NC100-5NH-250A	NC100-5NH-10C5
100 5 NO2	NC100-5NO-50A	NC100-5NO-100A	NC100-5NO-150A	NC100-5NO-250A	NC100-5NO-10C5
100 5 SA	NC100-5SA-50A	NC100-5SA-100A	NC100-5SA-150A	NC100-5SA-250A	NC100-5SA-10C5
100 5 SB	NC100-5SB-50A	NC100-5SB-100A	NC100-5SB-150A	NC100-5SB-250A	NC100-5SB-10C5
100 5 C18 AB	NC100-5C18AB-50A	NC100-5C18AB-100A	NC100-5C18AB-150A	NC100-5C18AB-250A	NC100-5C18AB-10C5
7µm					
100 7 Silica	NC100-7-50A	NC100-7-100A	NC100-7-150A	NC100-7-250A	NC100-7-10C5
100 7 C18	NC100-7C18-50A	NC100-7C18-100A	NC100-7C18-150A	NC100-7C18-250A	NC100-7C18-10C5
100 7 C8	NC100-7C8-50A	NC100-7C8-100A	NC100-7C8-150A	NC100-7C8-250A	NC100-7C8-10C5
100 7 C2	NC100-7C2-50A	NC100-7C2-100A	NC100-7C2-150A	NC100-7C2-250A	NC100-7C2-10C5
100 7 Phenyl	NC100-7P-50A	NC100-7P-100A	NC100-7P-150A	NC100-7P-250A	NC100-7P-10C5
100 7 Diol	NC100-7DIOL-50A	NC100-7DIOL-100A	NC100-7DIOL-150A	NC100-7DIOL-250A	NC100-7DIOL-10C5
10µm					
100 10 Silica	NC100-10-50A	NC100-10-100A	NC100-10-150A	NC100-10-250A	NC100-10-10C5
100 10 C18	NC100-10C18-50A	NC100-10C18-100A	NC100-10C18-150A	NC100-10C18-250A	NC100-10C18-10C5
100 10 C8	NC100-10C8-50A	NC100-10C8-100A	NC100-10C8-150A	NC100-10C8-250A	NC100-10C8-10C5
100 10 CN	NC100-10CN-50A	NC100-10CN-100A	NC100-10CN-150A	NC100-10CN-250A	NC100-10CN-10C5
100 10 SA	NC100-10SA-50A	NC100-10SA-100A	NC100-10SA-150A	NC100-10SA-250A	NC100-10SA-10C5
100 10 SB	NC100-10SB-50A	NC100-10SB-100A	NC100-10SB-150A	NC100-10SB-250A	NC100-10SB-10C5

¹ Other column dimensions available – please enquire² 5/pk - Use with free-standing holder HI-161 and column coupler HI-081 – see p. 20³ Starter kits also available – see p. 21

Semi-Preparative and Preparative (7.75 – 21.2mm i.d.) Columns

Please contact Hichrom for further details of 7.75-21.2mm i.d. NUCLEOSIL 100Å columns.

Ordering Information - NUCLEOSIL® 120Å – Hichrom Manufactured Columns

Microbore (1.0 – 2.1mm i.d.) Columns

Please contact Hichrom for further details of 1.0mm and 2.1mm i.d. NUCLEOSIL 120Å columns.

Medium Bore (3.2mm i.d.) Columns

NUCLEOSIL Phase	Column Dimensions ¹ (mm)				Guard Cartridges ^{2,3} (For 3.2mm i.d. Columns)
	50 x 3.2	100 x 3.2	150 x 3.2	250 x 3.2	
3µm					
120 3 Silica	NC120-3-50AS	NC120-3-100AS	NC120-3-150AS	NC120-3-250AS	NC120-3-10C5
120 3 C18	NC120-3C18-50AS	NC120-3C18-100AS	NC120-3C18-150AS	-	NC120-3C18-10C5
120 3 C8	NC120-3C8-50AS	NC120-3C8-100AS	NC120-3C8-150AS	-	NC120-3C8-10C5
5µm					
120 5 Silica	NC120-5-50AS	NC120-5-100AS	NC120-5-150AS	NC120-5-250AS	NC120-5-10C5
100 5 C18	NC120-5C18-50AS	NC120-5C18-100AS	NC120-5C18-150AS	NC120-5C18-250AS	NC120-5C18-10C5
100 5 C8	NC120-5C8-50AS	NC120-5C8-100AS	NC120-5C8-150AS	NC120-5C8-250AS	NC120-5C8-10C5

Analytical (4.0mm i.d.) Columns

NUCLEOSIL Phase	Column Dimensions ¹ (mm)				Guard Cartridges ^{2,3} (For 4.0mm i.d. Columns)
	50 x 4.0	100 x 4.0	150 x 4.0	250 x 4.0	
3µm					
120 3 Silica	NC120-3-50AF	NC120-3-100AF	NC120-3-150AF	NC120-3-250AF	NC120-3-10C5
120 3 C18	NC120-3C18-50AF	NC120-3C18-100AF	NC120-3C18-150AF	-	NC120-3C18-10C5
120 3 C8	NC120-3C8-50AF	NC120-3C8-100AF	NC120-3C8-150AF	-	NC120-3C8-10C5
5µm					
120 5 Silica	NC120-5-50AF	NC120-5-100AF	NC120-5-150AF	NC120-5-250AF	NC120-5-10C5
100 5 C18	NC120-5C18-50AF	NC120-5C18-100AF	NC120-5C18-150AF	NC120-5C18-250AF	NC120-5C18-10C5
100 5 C8	NC120-5C8-50AF	NC120-5C8-100AF	NC120-5C8-150AF	NC120-5C8-250AF	NC120-5C8-10C5

Analytical (4.6mm i.d.) Columns

NUCLEOSIL Phase	Column Dimensions ¹ (mm)				Guard Cartridges ^{2,3} (For 4.6mm i.d. Columns)
	50 x 4.6	100 x 4.6	150 x 4.6	250 x 4.6	
3µm					
120 3 Silica	NC120-3-50A	NC120-3-100A	NC120-3-150A	NC120-3-250A	NC120-3-10C5
120 3 C18	NC120-3C18-50A	NC120-3C18-100A	NC120-3C18-150A	-	NC120-3C18-10C5
120 3 C8	NC120-3C8-50A	NC120-3C8-100A	NC120-3C8-150A	-	NC120-3C8-10C5
5µm					
120 5 Silica	NC120-5-50A	NC120-5-100A	NC120-5-150A	NC120-5-250A	NC120-5-10C5
120 5 C18	NC120-5C18-50A	NC120-5C18-100A	NC120-5C18-150A	NC120-5C18-250A	NC120-5C18-10C5
120 5 C8	NC120-5C8-50A	NC120-5C8-100A	NC120-5C8-150A	NC120-5C8-250A	NC120-5C8-10C5
7µm					
120 7 C18	NC120-7C18-50A	NC120-7C18-100A	NC120-7C18-150A	NC120-7C18-250A	NC120-7C18-10C5
120 7 C8	NC120-7C8-50A	NC120-7C8-100A	NC120-7C8-150A	NC120-7C8-250A	NC120-7C8-10C5
120 7 Phenyl	NC120-7P-50A	NC120-7P-100A	NC120-7P-150A	NC120-7P-250A	NC120-7CP-10C5
120 7 CN	NC120-7CN-50A	NC120-7CN-100A	NC120-7CN-150A	NC120-7CN-250A	NC120-7CN-10C5
120 7 NH2	NC120-7NH-50A	NC120-7NH-100A	NC120-7NH-150A	NC120-7NH-250A	NC120-7NH-10C5
10µm					
120 10 C18	NC120-10C18-50A	NC120-10C18-100A	NC120-10C18-150A	NC120-10C18-250A	NC120-10C18-10C5
120 10 C8	NC120-10C8-50A	NC120-10C8-100A	NC120-10C8-150A	NC120-10C8-250A	NC120-10C8-10C5

¹ Other column dimensions available – please enquire

² 5/pk - Use with free-standing holder HI-161 and column coupler HI-081 – see p. 20

³ Starter kits also available – see p. 21

Ordering Information - NUCLEOSIL® 300Å – Hichrom Manufactured Columns

Microbore (1.0mm i.d.) Columns

Please contact Hichrom for further details of 1.0mm i.d. NUCLEOSIL 300Å columns.

Microbore (2.1mm i.d.) Columns

NUCLEOSIL Phase	Column Dimensions ¹ (mm)				Guard Cartridges ^{2,3} (For 2.1mm i.d. Columns)
	50 x 2.1	100 x 2.1	150 x 2.1	250 x 2.1	
5µm					
300 5 C4	NC300-5C4-50AM	NC300-5C4-100AM	NC300-5C4-150AM	NC300-5C4-250AM	NC300-5C4-10CM5
300 5 C8	NC300-5C8-50AM	NC300-5C8-100AM	NC300-5C8-150AM	NC300-5C8-250AM	NC300-5C8-10CM5
300 5 C18	NC300-5C18-50AM	NC300-5C18-100AM	NC300-5C18-150AM	NC300-5C18-250AM	NC300-5C18-10CM5

Medium Bore (3.2mm i.d.) Columns

NUCLEOSIL Phase	Column Dimensions ¹ (mm)				Guard Cartridges ^{2,3} (For 3.2mm i.d. Columns)
	50 x 3.2	100 x 3.2	150 x 3.2	250 x 3.2	
5µm					
300 5 C4	NC300-5C4-50AS	NC300-5C4-100AS	NC300-5C4-150AS	NC300-5C4-250AS	NC300-5C4-10C5
300 5 C8	NC300-5C8-50AS	NC300-5C8-100AS	NC300-5C8-150AS	NC300-5C8-250AS	NC300-5C8-10C5
300 5 C18	NC300-5C18-50AS	NC300-5C18-100AS	NC300-5C18-150AS	NC300-5C18-250AS	NC300-5C18-10C5

Analytical (4.0mm i.d.) Columns

Please contact Hichrom for further details of 4.0mm i.d. NUCLEOSIL 300Å columns.

Analytical (4.6mm i.d.) Columns

NUCLEOSIL Phase	Column Dimensions ¹ (mm)				Guard Cartridges ^{2,3} (For 4.6mm i.d. Columns)
	50 x 4.6	100 x 4.6	150 x 4.6	250 x 4.6	
5µm					
300 5 C4	NC300-5C4-50A	NC300-5C4-100A	NC300-5C4-150A	NC300-5C4-250A	NC300-5C4-10C5
300 5 C8	NC300-5C8-50A	NC300-5C8-100A	NC300-5C8-150A	NC300-5C8-250A	NC300-5C8-10C5
300 5 C18	NC300-5C18-50A	NC300-5C18-100A	NC300-5C18-150A	NC300-5C18-250A	NC300-5C18-10C5

¹ Other column dimensions available – please enquire

² 5/pk - Use with free-standing holder HI-161 and column coupler HI-081 – see p. 20

³ Starter kits also available – see p. 21

Semi-Preparative and Preparative Columns (7.75 – 21.2mm i.d.)

Please contact Hichrom for further details of 7.75 – 21.2mm i.d. NUCLEOSIL 300Å columns.

Please contact us for ordering details on
all Macherey-Nagel columns not listed



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