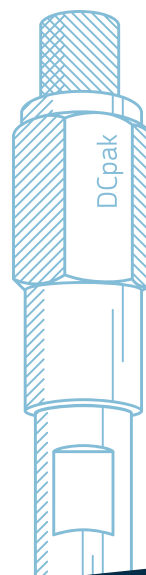
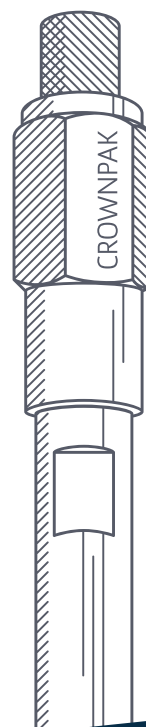
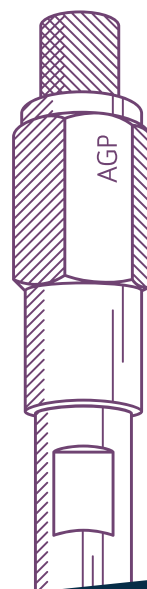
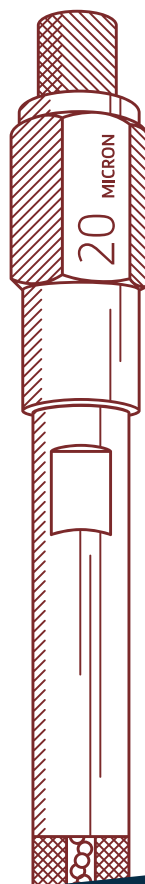
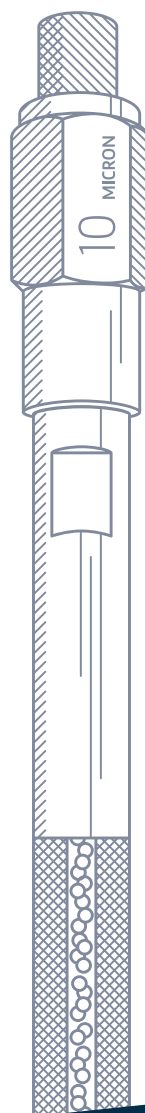
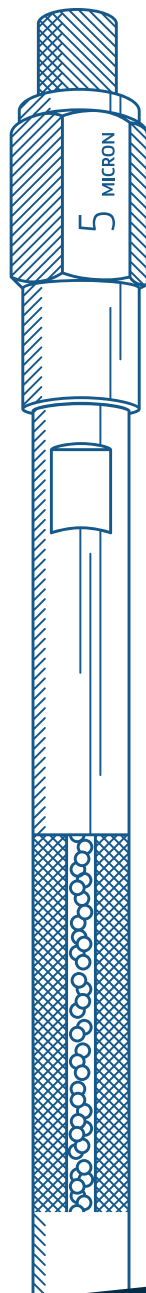
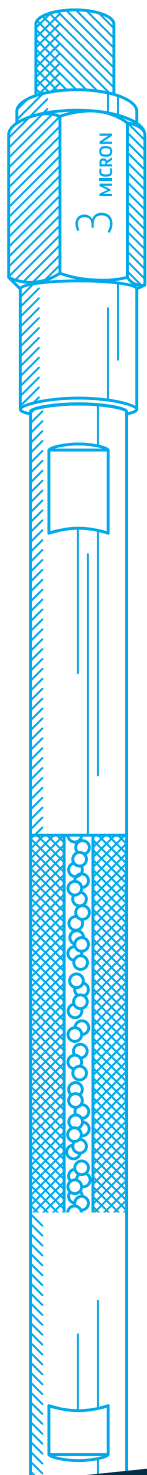
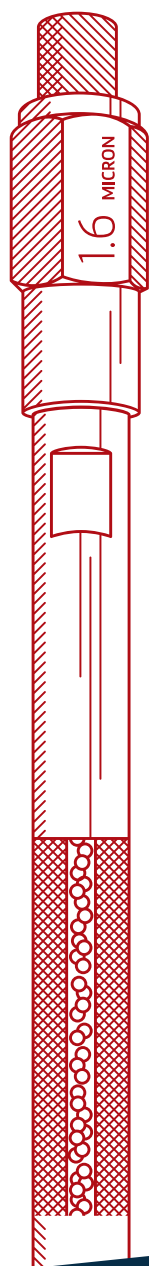
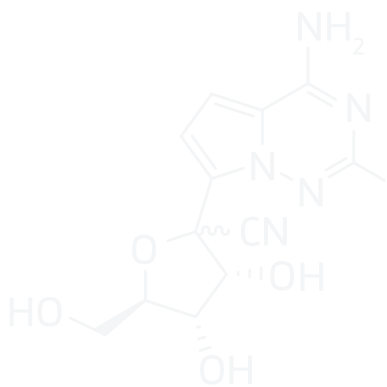
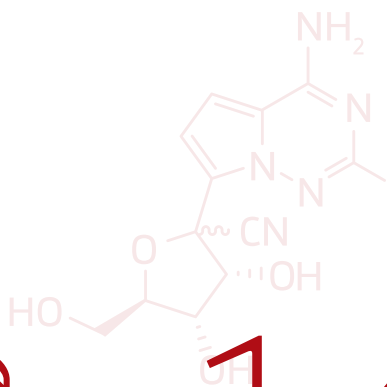
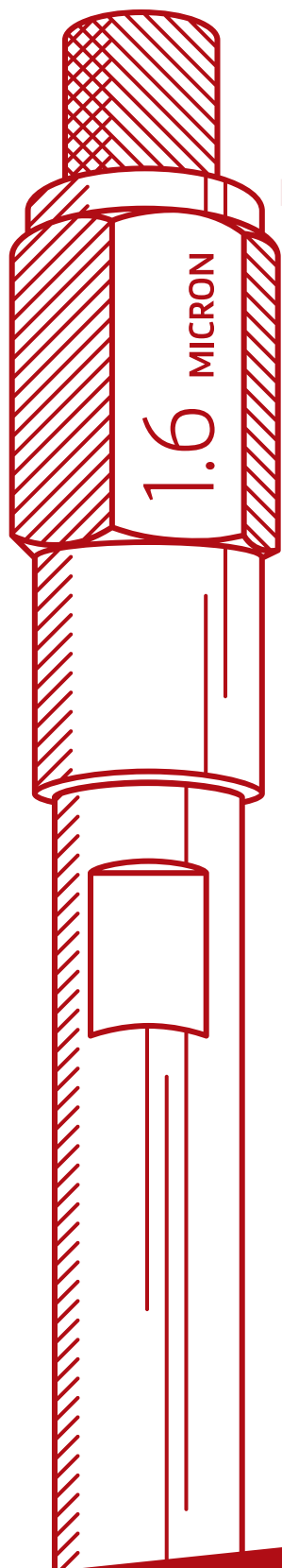


# 2023 PRODUCT LIST





# 1.6 MICRON

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## IMMOBILIZED ANALYTICAL COLUMNS

1.6  $\mu\text{m}$  3.0 mm I.D.

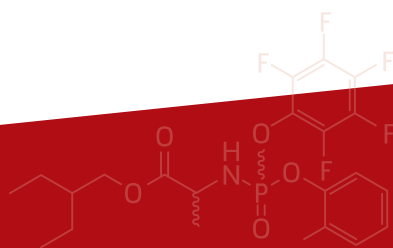
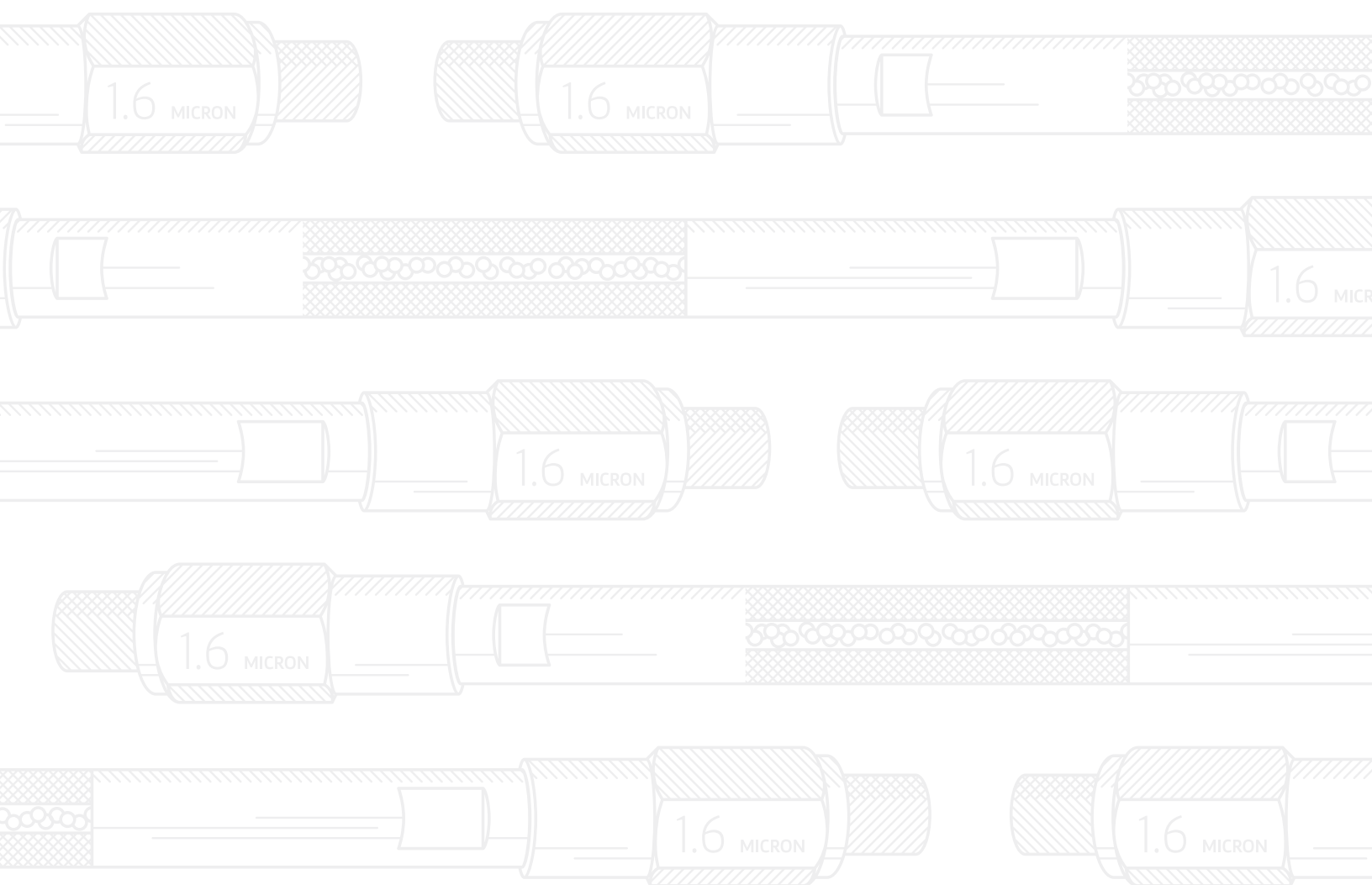
Page 3

# 1.6 MICRON

## IMMOBILIZED ANALYTICAL COLUMNS - 1.6 $\mu$ m 3.0 mm I.D.

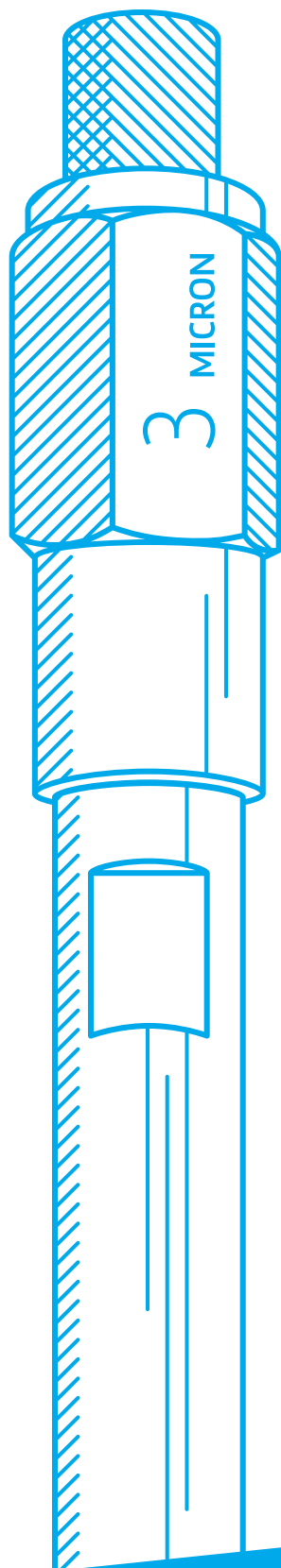
COMPATIBLE WITH HPLC AND UHPLC (NORMAL PHASE AND REVERSED-PHASE) AND SFC

| PRODUCT NAME   | LENGTH (mm) |       |
|----------------|-------------|-------|
|                | 50          | 100   |
| CHIRALPAK IA-U | 80U82       | 80U83 |
| CHIRALPAK IB-U | 81U82       | 81U83 |
| CHIRALPAK IC-U | 83U82       | 83U83 |
| CHIRALPAK ID-U | 84U82       | 84U83 |
| CHIRALPAK IG-U | 87U82       | 87U83 |
| CHIRALPAK IH-U | 89U82       | 89U83 |



Please call us for your custom column needs.

**1-800-6CHIRAL**



# 3 MICRON

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## IMMOBILIZED ANALYTICAL COLUMNS

3  $\mu$ m 2.1 mm I.D. Page 5

3  $\mu$ m 4.6 mm I.D. Page 6

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## COATED ANALYTICAL COLUMNS

3  $\mu$ m 2.1 mm I.D. Page 5

3  $\mu$ m 4.6 mm I.D. Page 6

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## IMMOBILIZED AND COATED ANALYTICAL COLUMNS (OPTIMIZED FOR SFC)

3  $\mu$ m 3.0 mm I.D. Page 7

## 3 MICRON

### IMMOBILIZED ANALYTICAL COLUMNS - 3 $\mu$ m 2.1 mm I.D.

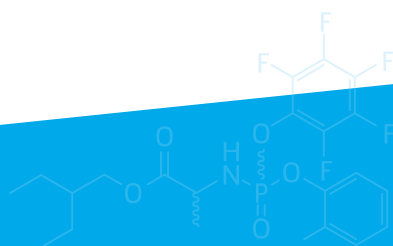
COMPATIBLE WITH HPLC AND UHPLC (NORMAL PHASE AND REVERSED-PHASE) AND SFC

| PRODUCT NAME     | LENGTH (mm) |       |       |       |
|------------------|-------------|-------|-------|-------|
|                  | 50          | 100   | 150   | 250   |
| CHIRALPAK IA-3   | 80592       | 80593 | 80594 | 80595 |
| CHIRALPAK IB N-3 | 88592       | 88593 | 88594 | 88595 |
| CHIRALPAK IB-3   | 81592       | 81593 | 81594 | 81595 |
| CHIRALPAK IC-3   | 83592       | 83593 | 83594 | 83595 |
| CHIRALPAK ID-3   | 84592       | 84593 | 84594 | 84595 |
| CHIRALPAK IE-3   | 85592       | 85593 | 85594 | 85595 |
| CHIRALPAK IF-3   | 86592       | 86593 | 86594 | 86595 |
| CHIRALPAK IG-3   | 87592       | 87593 | 87594 | 87595 |
| CHIRALPAK IH-3   | 89592       | 89593 | 89594 | 89595 |
| CHIRALPAK IJ-3   | 90592       | 90593 | 90594 | 90595 |
| CHIRALPAK IK-3   | 91592       | 91593 | 91594 | 91595 |
| CHIRALPAK IM-3   | 92592       | 92593 | 92594 | 92595 |

### COATED ANALYTICAL COLUMNS - 3 $\mu$ m 2.1 mm I.D.

COMPATIBLE WITH HPLC AND UHPLC (NORMAL PHASE AND REVERSED-PHASE) AND SFC

| PRODUCT NAME         | LENGTH (mm) |       |       |       |
|----------------------|-------------|-------|-------|-------|
|                      | 50          | 100   | 150   | 250   |
| NORMAL PHASE AND SFC |             |       |       |       |
| CHIRALCEL OD-3       | 14592       | 14593 | 14594 | 14595 |
| CHIRALCEL OJ-3       | 17592       | 17593 | 17594 | 17595 |
| CHIRALPAK AD-3       | 19592       | 19593 | 19594 | 19595 |
| CHIRALPAK AS-3       | 20592       | 20593 | 20594 | 20595 |
| CHIRALCEL OZ-3       | 42592       | 42593 | 42594 | 42595 |
| CHIRALPAK AY-3       | 47592       | 47593 | 47594 | 47595 |
| CHIRALPAK AZ-3       | 61592       | 61593 | 61594 | 61595 |
| CHIRALCEL OX-3       | 63592       | 63593 | 63594 | 63595 |
| REVERSED-PHASE ONLY  |             |       |       |       |
| CHIRALCEL OD-3R      | 14892       | 14893 | 14894 | 14895 |
| CHIRALCEL OJ-3R      | 17892       | 17893 | 17894 | 17895 |
| CHIRALPAK AD-3R      | 19892       | 19893 | 19894 | 19895 |
| CHIRALPAK AS-3R      | 20892       | 20893 | 20894 | 20895 |
| CHIRALCEL OZ-3R      | 42892       | 42893 | 42894 | 42895 |
| CHIRALPAK AY-3R      | 47892       | 47893 | 47894 | 47895 |
| CHIRALPAK AZ-3R      | 61892       | 61893 | 61894 | 61895 |
| CHIRALCEL OX-3R      | 63892       | 63893 | 63894 | 63895 |



Please call us for your custom column needs.

**1-800-6CHIRAL**

# 3 MICRON

## IMMOBILIZED ANALYTICAL COLUMNS - 3 µm 4.6 mm I.D.

COMPATIBLE WITH HPLC (NORMAL PHASE AND REVERSED-PHASE) AND SFC

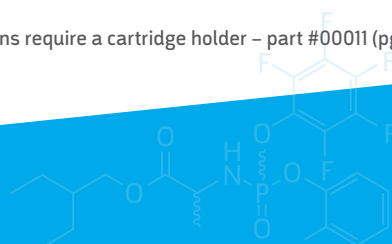
| PRODUCT NAME     | LENGTH (mm) |       |       |       | GUARD CARTRIDGES (3) |
|------------------|-------------|-------|-------|-------|----------------------|
|                  | 50          | 100   | 150   | 250   | 4.0 x 10*            |
| CHIRALPAK IA-3   | 80522       | 80523 | 80524 | 80525 | 80511                |
| CHIRALPAK IB N-3 | 88522       | 88523 | 88524 | 88525 | 88511                |
| CHIRALPAK IB-3   | 81522       | 81523 | 81524 | 81525 | 81511                |
| CHIRALPAK IC-3   | 83522       | 83523 | 83524 | 83525 | 83511                |
| CHIRALPAK ID-3   | 84522       | 84523 | 84524 | 84525 | 84511                |
| CHIRALPAK IE-3   | 85522       | 85523 | 85524 | 85525 | 85511                |
| CHIRALPAK IF-3   | 86522       | 86523 | 86524 | 86525 | 86511                |
| CHIRALPAK IG-3   | 87522       | 87523 | 87524 | 87525 | 87511                |
| CHIRALPAK IH-3   | 89522       | 89523 | 89524 | 89525 | 89511                |
| CHIRALPAK IJ-3   | 90522       | 90523 | 90524 | 90525 | 90511                |
| CHIRALPAK IK-3   | 91522       | 91523 | 91524 | 91525 | 91511                |
| CHIRALPAK IM-3   | 92522       | 92523 | 92524 | 92525 | 92511                |

## COATED ANALYTICAL COLUMNS - 3 µm 4.6 mm I.D.

COMPATIBLE WITH HPLC (NORMAL PHASE AND REVERSED-PHASE) AND SFC

| PRODUCT NAME         | LENGTH (mm) |       |       |       | GUARD CARTRIDGES (3) |
|----------------------|-------------|-------|-------|-------|----------------------|
|                      | 50          | 100   | 150   | 250   | 4.0 x 10*            |
| NORMAL PHASE AND SFC |             |       |       |       |                      |
| CHIRALCEL OD-3       | 14522       | 14523 | 14524 | 14525 | 14511                |
| CHIRALCEL OJ-3       | 17522       | 17523 | 17524 | 17525 | 17511                |
| CHIRALPAK AD-3       | 19522       | 19523 | 19524 | 19525 | 19511                |
| CHIRALPAK AS-3       | 20522       | 20523 | 20524 | 20525 | 20511                |
| CHIRALCEL OZ-3       | 42522       | 42523 | 42524 | 42525 | 42511                |
| CHIRALPAK AY-3       | 47522       | 47523 | 47524 | 47525 | 47511                |
| CHIRALPAK AZ-3       | 61522       | 61523 | 61524 | 61525 | 61511                |
| CHIRALCEL OX-3       | 63522       | 63523 | 63524 | 63525 | 63511                |
| REVERSED-PHASE ONLY  |             |       |       |       |                      |
| CHIRALCEL OD-3R      | 14822       | 14823 | 14824 | 14825 | 14811                |
| CHIRALCEL OJ-3R      | 17822       | 17823 | 17824 | 17825 | 17811                |
| CHIRALPAK AD-3R      | 19822       | 19823 | 19824 | 19825 | 19811                |
| CHIRALPAK AS-3R      | 20822       | 20823 | 20824 | 20825 | 20811                |
| CHIRALCEL OZ-3R      | 42822       | 42823 | 42824 | 42825 | 42811                |
| CHIRALPAK AY-3R      | 47822       | 47823 | 47824 | 47825 | 47811                |
| CHIRALPAK AZ-3R      | 61822       | 61823 | 61824 | 61825 | 61811                |
| CHIRALCEL OX-3R      | 63822       | 63823 | 63824 | 63825 | 63811                |

\* All Guard Cartridges for analytical columns require a cartridge holder – part #00011 (pg. 29).



Please call us for your custom column needs.

**1-800-6CHIRAL**

## 3 MICRON OPTIMIZED FOR SFC

### IMMOBILIZED ANALYTICAL COLUMNS - 3 $\mu$ m 3.0 mm I.D.

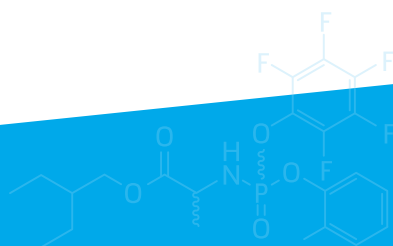
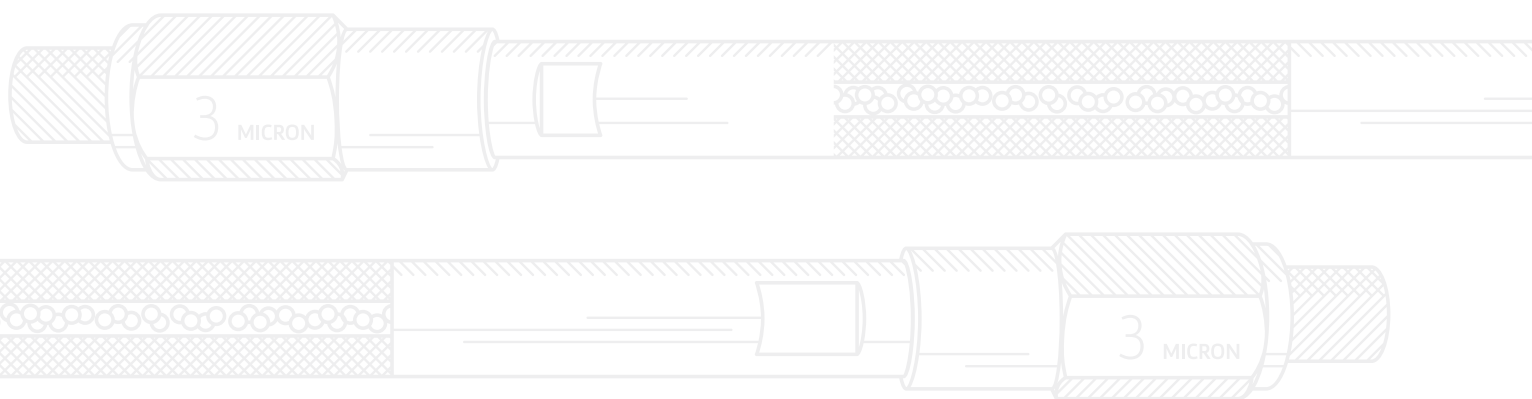
OPTIMIZED FOR SFC AND COMPATIBLE WITH UHPLC (NORMAL PHASE AND REVERSED-PHASE)

| PRODUCT NAME         | LENGTH (mm) |       |       |
|----------------------|-------------|-------|-------|
|                      | 50          | 100   | 150   |
| CHIRALPAK IA-3/SFC   | 80S82       | 80S83 | 80S84 |
| CHIRALPAK IB N-3/SFC | 88S82       | 88S83 | 88S84 |
| CHIRALPAK IB-3/SFC   | 81S82       | 81S83 | 81S84 |
| CHIRALPAK IC-3/SFC   | 83S82       | 83S83 | 83S84 |
| CHIRALPAK ID-3/SFC   | 84S82       | 84S83 | 84S84 |
| CHIRALPAK IE-3/SFC   | 85S82       | 85S83 | 85S84 |
| CHIRALPAK IF-3/SFC   | 86S82       | 86S83 | 86S84 |
| CHIRALPAK IG-3/SFC   | 87S82       | 87S83 | 87S84 |
| CHIRALPAK IH-3/SFC   | 89S82       | 89S83 | 89S84 |
| CHIRALPAK IJ-3/SFC   | 90S82       | 90S83 | 90S84 |
| CHIRALPAK IK-3/SFC   | 91S82       | 91S83 | 91S84 |
| CHIRALPAK IM-3/SFC   | 92S82       | 92S83 | 92S84 |

### COATED ANALYTICAL COLUMNS - 3 $\mu$ m 3.0 mm I.D.

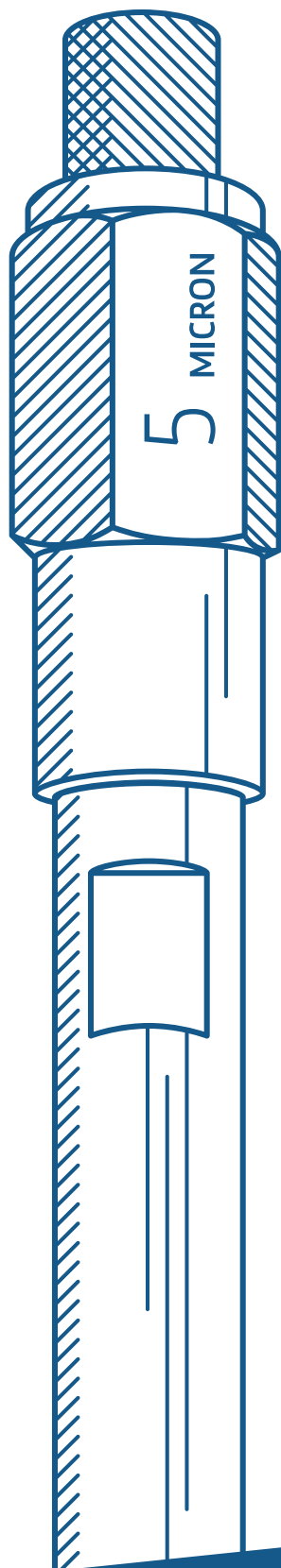
OPTIMIZED FOR SFC AND COMPATIBLE WITH UHPLC (NORMAL PHASE AND REVERSED-PHASE)

| PRODUCT NAME       | LENGTH (mm) |       |       |
|--------------------|-------------|-------|-------|
|                    | 50          | 100   | 150   |
| CHIRALCEL OD-3/SFC | 14S82       | 14S83 | 14S84 |
| CHIRALCEL OJ-3/SFC | 17S82       | 17S83 | 17S84 |
| CHIRALPAK AD-3/SFC | 19S82       | 19S83 | 19S84 |
| CHIRALPAK AS-3/SFC | 20S82       | 20S83 | 20S84 |
| CHIRALCEL OZ-3/SFC | 42S82       | 42S83 | 42S84 |
| CHIRALPAK AY-3/SFC | 47S82       | 47S83 | 47S84 |
| CHIRALPAK AZ-3/SFC | 61S82       | 61S83 | 61S84 |
| CHIRALCEL OX-3/SFC | 63S82       | 63S83 | 63S84 |



Please call us for your custom column needs.

**1-800-6CHIRAL**



# 5 MICRON

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## IMMOBILIZED AND COATED ANALYTICAL COLUMNS

5  $\mu\text{m}$  2.1 mm I.D. Page 9

5  $\mu\text{m}$  4.6 mm I.D. Page 10

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## IMMOBILIZED SEMI-PREP AND PREP COLUMNS

5  $\mu\text{m}$  Page 11

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## COATED SEMI-PREP AND PREP COLUMNS

5  $\mu\text{m}$  Page 12



## 5 MICRON

### IMMOBILIZED ANALYTICAL COLUMNS - 5 $\mu$ m 2.1 mm I.D.

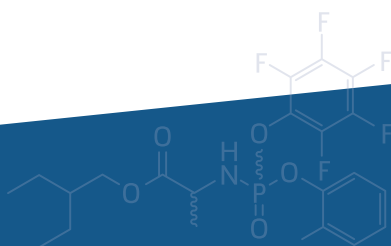
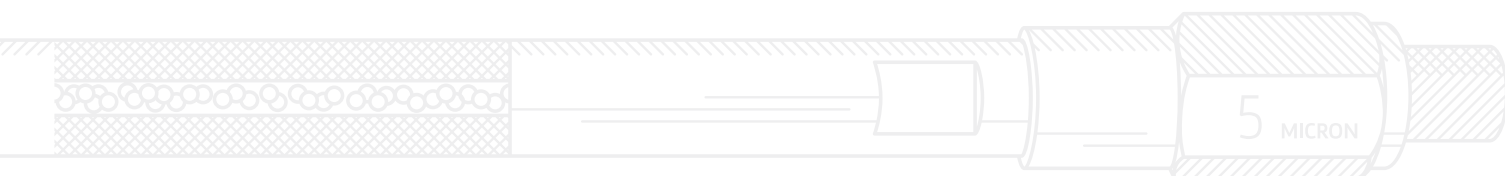
COMPATIBLE WITH HPLC (NORMAL PHASE AND REVERSED-PHASE) AND SFC

| PRODUCT NAME     | LENGTH (mm) |
|------------------|-------------|
|                  | <b>150</b>  |
| CHIRALPAK IA     | 80394       |
| CHIRALPAK IB N-5 | 88394       |
| CHIRALPAK IB     | 81394       |
| CHIRALPAK IC     | 83394       |
| CHIRALPAK ID     | 84394       |
| CHIRALPAK IE     | 85394       |
| CHIRALPAK IF     | 86394       |
| CHIRALPAK IG     | 87394       |
| CHIRALPAK IH     | 89394       |
| CHIRALPAK IJ     | 90394       |
| CHIRALPAK IK     | 91394       |
| CHIRALPAK IM     | 92394       |

### COATED ANALYTICAL COLUMNS - 5 $\mu$ m 2.1 mm I.D.

COMPATIBLE WITH HPLC (NORMAL PHASE AND REVERSED-PHASE) AND SFC

| PRODUCT NAME                | LENGTH (mm) |
|-----------------------------|-------------|
|                             | <b>150</b>  |
| <b>NORMAL PHASE AND SFC</b> |             |
| CHIRALCEL OD-H              | 14394       |
| CHIRALCEL OJ-H              | 17394       |
| CHIRALPAK AD-H              | 19394       |
| CHIRALPAK AS-H              | 20394       |
| CHIRALCEL OZ-H              | 42394       |
| CHIRALPAK AY-H              | 47394       |
| CHIRALPAK AZ-H              | 61394       |
| CHIRALCEL OX-H              | 63394       |
|                             | <b>150</b>  |
| <b>REVERSED-PHASE ONLY</b>  |             |
| CHIRALCEL OD-RH             | 14794       |
| CHIRALCEL OJ-RH             | 17794       |
| CHIRALPAK AD-RH             | 19794       |
| CHIRALPAK AS-RH             | 20794       |
| CHIRALCEL OZ-RH             | 42794       |
| CHIRALPAK AY-RH             | 47794       |
| CHIRALPAK AZ-RH             | 61794       |
| CHIRALCEL OX-RH             | 63794       |



Please call us for your custom column needs.

**1-800-6CHIRAL**

## 5 MICRON

### IMMOBILIZED ANALYTICAL COLUMNS - 5 µm 4.6 mm I.D.

COMPATIBLE WITH HPLC (NORMAL PHASE AND REVERSED-PHASE) AND SFC

| PRODUCT NAME     | LENGTH (mm) |       |       |       | GUARD CARTRIDGES (3) |
|------------------|-------------|-------|-------|-------|----------------------|
|                  | 50          | 100   | 150   | 250   | 4.0 x 10*            |
| CHIRALPAK IA     | 80422       | 80423 | 80324 | 80325 | 80311                |
| CHIRALPAK IB N-5 | 88422       | 88423 | 88324 | 88325 | 88311                |
| CHIRALPAK IB     | 81422       | 81423 | 81324 | 81325 | 81311                |
| CHIRALPAK IC     | 83422       | 83423 | 83324 | 83325 | 83311                |
| CHIRALPAK ID     | 84422       | 84423 | 84324 | 84325 | 84311                |
| CHIRALPAK IE     | 85422       | 85423 | 85324 | 85325 | 85311                |
| CHIRALPAK IF     | 86422       | 86423 | 86324 | 86325 | 86311                |
| CHIRALPAK IG     | 87422       | 87423 | 87324 | 87325 | 87311                |
| CHIRALPAK IH     | 89422       | 89423 | 89324 | 89325 | 89311                |
| CHIRALPAK IJ     | 90422       | 90423 | 90324 | 90325 | 90311                |
| CHIRALPAK IK     | 91422       | 91423 | 91324 | 91325 | 91311                |
| CHIRALPAK IM     | 92422       | 92423 | 92324 | 92325 | 92311                |

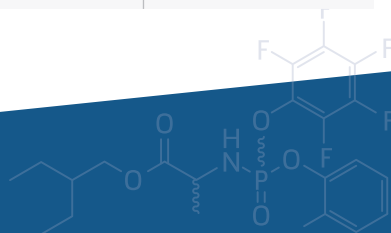
### COATED ANALYTICAL COLUMNS - 5 µm 4.6 mm I.D.

COMPATIBLE WITH HPLC (NORMAL PHASE AND REVERSED-PHASE) AND SFC

| PRODUCT NAME            | LENGTH (mm) |       |       |       | GUARD CARTRIDGES (3) |
|-------------------------|-------------|-------|-------|-------|----------------------|
|                         | 50          | 100   | 150   | 250   | 4.0 x 10*            |
| NORMAL PHASE AND/OR SFC |             |       |       |       |                      |
| CHIRALCEL OD-H          | 14422       | 14423 | 14324 | 14325 | 14311                |
| CHIRALCEL OJ-H          | 17422       | 17423 | 17324 | 17325 | 17311                |
| CHIRALPAK AD-H          | 19422       | 19423 | 19324 | 19325 | 19311                |
| CHIRALPAK AS-H          | 20422       | 20423 | 20324 | 20325 | 20311                |
| CHIRALCEL OZ-H          | 42422       | 42423 | 42324 | 42325 | 42311                |
| CHIRALPAK AY-H          | 47422       | 47423 | 47324 | 47325 | 47311                |
| CHIRALPAK AZ-H          | 61422       | 61423 | 61324 | 61325 | 61311                |
| CHIRALCEL OX-H          | 63422       | 63423 | 63324 | 63325 | 63311                |
| NORMAL PHASE ONLY       |             |       |       |       |                      |
| CHIRALCEL OB-H          | -           | -     | 12324 | 12325 | 12311                |
| CHIRALCEL OC-H          | -           | -     | -     | 13325 | 13311                |

| PRODUCT NAME        | LENGTH (mm) | GUARD CARTRIDGES (3) |
|---------------------|-------------|----------------------|
|                     | 150         | 4.0 x 10*            |
| REVERSED-PHASE ONLY |             |                      |
| CHIRALCEL OD-RH     | 14724       | 14711                |
| CHIRALCEL OJ-RH     | 17724       | 17711                |
| CHIRALPAK AD-RH     | 19724       | 19711                |
| CHIRALPAK AS-RH     | 20724       | 20711                |
| CHIRALCEL OZ-RH     | 42724       | 42711                |
| CHIRALPAK AY-RH     | 47724       | 47711                |
| CHIRALPAK AZ-RH     | 61724       | 61711                |
| CHIRALCEL OX-RH     | 63724       | 63711                |

\* All Guard Cartridges for analytical columns require a cartridge holder – part #00011 (pg. 29).



Please call us for your custom column needs.

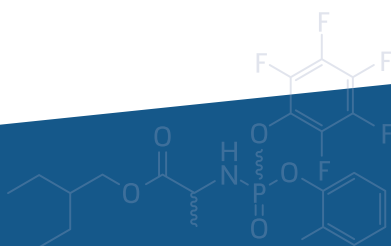
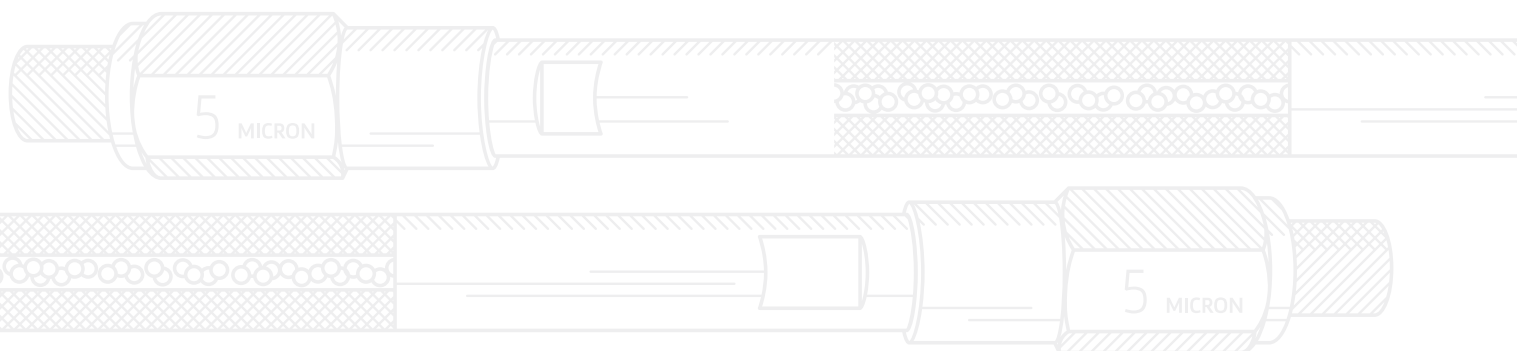
**1-800-6CHIRAL**

# 5 MICRON

## IMMOBILIZED SEMI-PREP AND PREP COLUMNS - 5 $\mu$ m

COMPATIBLE WITH HPLC (NORMAL PHASE AND REVERSED-PHASE) AND SFC

| PRODUCT NAME         | I.D. (mm) x LENGTH (mm) |               |          |               |          |               |          |
|----------------------|-------------------------|---------------|----------|---------------|----------|---------------|----------|
|                      | 10 x 250                | 10 x 20 Guard | 20 x 250 | 20 x 50 Guard | 30 x 250 | 30 x 50 Guard | 50 x 250 |
| NORMAL PHASE         |                         |               |          |               |          |               |          |
| CHIRALPAK IA         | 80335                   | 80337         | 80345    | 80342         | 80375    | 80372         | 80355    |
| CHIRALPAK IB N-5     | 88335                   | 88337         | 88345    | 88342         | 88375    | 88372         | 88355    |
| CHIRALPAK IB         | 81335                   | 81337         | 81345    | 81342         | 81375    | 81372         | 81355    |
| CHIRALPAK IC         | 83335                   | 83337         | 83345    | 83342         | 83375    | 83372         | 83355    |
| CHIRALPAK ID         | 84335                   | 84337         | 84345    | 84342         | 84375    | 84372         | 84355    |
| CHIRALPAK IE         | 85335                   | 85337         | 85345    | 85342         | 85375    | 85372         | 85355    |
| CHIRALPAK IF         | 86335                   | 86337         | 86345    | 86342         | 86375    | 86372         | 86355    |
| CHIRALPAK IG         | 87335                   | 87337         | 87345    | 87342         | 87375    | 87372         | 87355    |
| CHIRALPAK IH         | 89335                   | 89337         | 89345    | 89342         | 89375    | 89372         | 89355    |
| CHIRALPAK IJ         | 90335                   | 90337         | 90345    | 90342         | 90375    | 90372         | 90355    |
| CHIRALPAK IK         | 91335                   | 91337         | 91345    | 91342         | 91375    | 91372         | 91355    |
| CHIRALPAK IM         | 92335                   | 92337         | 92345    | 92342         | 92375    | 92372         | 92355    |
|                      | 10 x 250                | 10 x 50 Guard | 21 x 250 | 21 x 50 Guard | 30 x 250 | 30 x 50 Guard | 50 x 250 |
| SFC                  |                         |               |          |               |          |               |          |
| CHIRALPAK IA/SFC     | 80435                   | 80432         | 80445    | 80442         | 80475    | 80472         | 80455    |
| CHIRALPAK IB N-5/SFC | 88435                   | 88432         | 88445    | 88442         | 88475    | 88472         | 88455    |
| CHIRALPAK IB/SFC     | 81435                   | 81432         | 81445    | 81442         | 81475    | 81472         | 81455    |
| CHIRALPAK IC/SFC     | 83435                   | 83432         | 83445    | 83442         | 83475    | 83472         | 83455    |
| CHIRALPAK ID/SFC     | 84435                   | 84432         | 84445    | 84442         | 84475    | 84472         | 84455    |
| CHIRALPAK IE/SFC     | 85435                   | 85432         | 85445    | 85442         | 85475    | 85472         | 85455    |
| CHIRALPAK IF/SFC     | 86435                   | 86432         | 86445    | 86442         | 86475    | 86472         | 86455    |
| CHIRALPAK IG/SFC     | 87435                   | 87432         | 87445    | 87442         | 87475    | 87472         | 87455    |
| CHIRALPAK IH/SFC     | 89435                   | 89432         | 89445    | 89442         | 89475    | 89472         | 89455    |
| CHIRALPAK IJ/SFC     | 90435                   | 90432         | 90445    | 90442         | 90475    | 90472         | 90455    |
| CHIRALPAK IK/SFC     | 91435                   | 91432         | 91445    | 91442         | 91475    | 91472         | 91455    |
| CHIRALPAK IM/SFC     | 92435                   | 92432         | 92445    | 92442         | 92475    | 92472         | 92455    |



Please call us for your custom column needs.

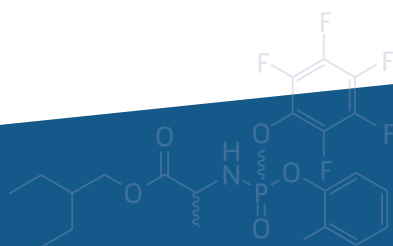
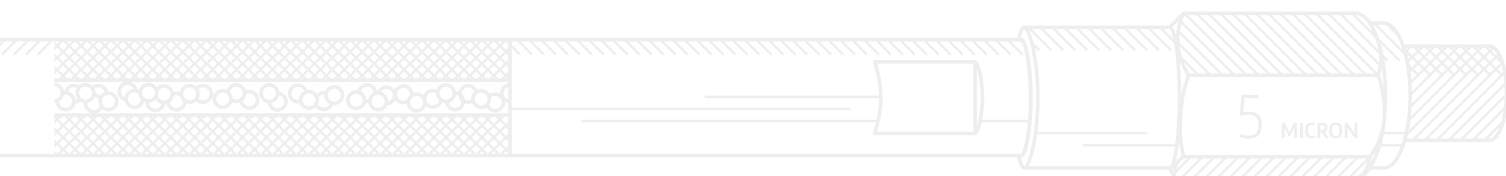
**1-800-6CHIRAL**

# 5 MICRON

## COATED SEMI-PREP AND PREP COLUMNS - 5 $\mu$ m

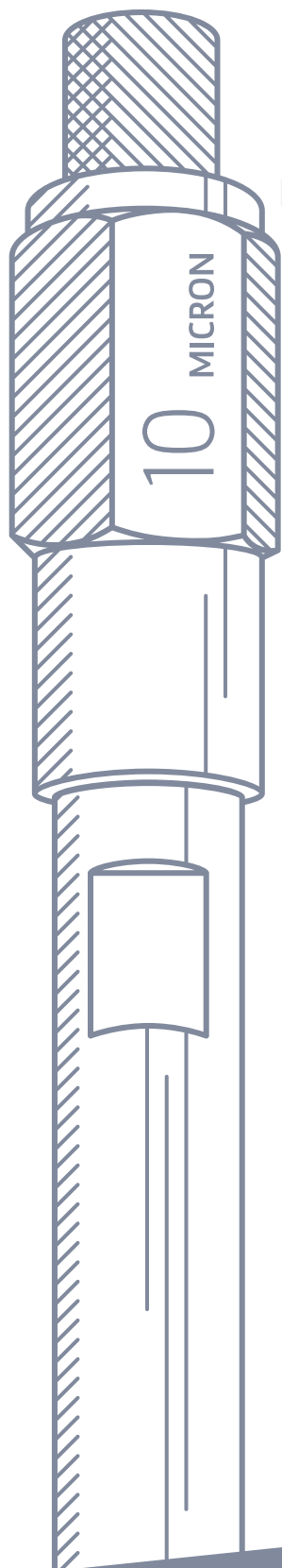
COMPATIBLE WITH HPLC (NORMAL PHASE AND REVERSED-PHASE) AND SFC

| PRODUCT NAME        | I.D. (mm) x LENGTH (mm) |               |          |               |          |               |          |
|---------------------|-------------------------|---------------|----------|---------------|----------|---------------|----------|
|                     | 10 x 250                | 10 x 20 Guard | 20 x 250 | 20 x 50 Guard | 30 x 250 | 30 x 50 Guard | 50 x 250 |
| NORMAL PHASE        |                         |               |          |               |          |               |          |
| CHIRALCEL OD-H      | 14335                   | 14337         | 14345    | 14342         | 14375    | 14372         | 14355    |
| CHIRALCEL OJ-H      | 17335                   | 17337         | 17345    | 17342         | 17375    | 17372         | 17355    |
| CHIRALPAK AD-H      | 19335                   | 19337         | 19345    | 19342         | 19375    | 19372         | 19355    |
| CHIRALPAK AS-H      | 20335                   | 20337         | 20345    | 20342         | 20375    | 20372         | 20355    |
| CHIRALCEL OZ-H      | 42335                   | 42337         | 42345    | 42342         | 42375    | 42372         | 42355    |
| CHIRALPAK AY-H      | 47335                   | 47337         | 47345    | 47342         | 47375    | 47372         | 47355    |
| CHIRALPAK AZ-H      | 61335                   | 61337         | 61345    | 61342         | 61375    | 61372         | 61355    |
| CHIRALCEL OX-H      | 63335                   | 63337         | 63345    | 63342         | 63375    | 63372         | 63355    |
|                     | 10 x 250                | 10 x 50 Guard | 21 x 250 | 21 x 50 Guard | 30 x 250 | 30 x 50 Guard | 50 x 250 |
| SFC                 |                         |               |          |               |          |               |          |
| CHIRALCEL OD-H/ SFC | 14435                   | 14432         | 14445    | 14442         | 14475    | 14472         | 14455    |
| CHIRALCEL OJ-H/ SFC | 17435                   | 17432         | 17445    | 17442         | 17475    | 17472         | 17455    |
| CHIRALPAK AD-H/ SFC | 19435                   | 19432         | 19445    | 19442         | 19475    | 19472         | 19455    |
| CHIRALPAK AS-H/ SFC | 20435                   | 20432         | 20445    | 20442         | 20475    | 20472         | 20455    |
| CHIRALCEL OZ-H/ SFC | 42435                   | 42432         | 42445    | 42442         | 42475    | 42472         | 42455    |
| CHIRALPAK AY-H/ SFC | 47435                   | 47432         | 47445    | 47442         | 47475    | 47472         | 47455    |
| CHIRALPAK AZ-H/ SFC | 61435                   | 61432         | 61445    | 61442         | 61475    | 61472         | 61455    |
| CHIRALCEL OX-H/ SFC | 63435                   | 63432         | 63445    | 63442         | 63475    | 63472         | 63455    |
|                     | 20 x 250                |               |          |               |          |               |          |
| REVERSED-PHASE ONLY |                         |               |          |               |          |               |          |
| CHIRALCEL OD-RH     | 14745                   |               |          |               |          |               |          |
| CHIRALCEL OJ-RH     | 17745                   |               |          |               |          |               |          |
| CHIRALPAK AD-RH     | 19745                   |               |          |               |          |               |          |
| CHIRALPAK AS-RH     | 20745                   |               |          |               |          |               |          |
| CHIRALCEL OZ-RH     | 42745                   |               |          |               |          |               |          |
| CHIRALPAK AY-RH     | 47745                   |               |          |               |          |               |          |
| CHIRALPAK AZ-RH     | 61745                   |               |          |               |          |               |          |
| CHIRALCEL OX-RH     | 63745                   |               |          |               |          |               |          |



Please call us for your custom column needs.

**1-800-6CHIRAL**



# 10 MICRON

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## IMMOBILIZED AND COATED ANALYTICAL COLUMNS

10  $\mu\text{m}$  2.1 mm I.D. Page 14

10  $\mu\text{m}$  4.6 mm I.D. Page 14

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## IMMOBILIZED AND COATED SEMI-PREP AND PREP COLUMNS (OPTIMIZED FOR SFC)

10  $\mu\text{m}$  Page 15

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## COATED ANALYTICAL, SEMI-PREP AND PREP COLUMNS (OPTIMIZED FOR HPLC)

10  $\mu\text{m}$  Page 16

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## BULK CSP

10  $\mu\text{m}$  Page 17

# 10 MICRON

## IMMOBILIZED ANALYTICAL COLUMNS - 10 µm 2.1 mm I.D. AND 4.6 mm I.D.

COMPATIBLE WITH HPLC (NORMAL PHASE AND REVERSED-PHASE) AND SFC

| PRODUCT NAME      | I.D. (mm) x LENGTH (mm) |                |           |           |
|-------------------|-------------------------|----------------|-----------|-----------|
|                   | 2.1 x 150               | 4.6 x 50 Guard | 4.6 x 150 | 4.6 x 250 |
| CHIRALPAK IA-10   | 80♦94                   | 80♦22          | 80♦24     | 80♦25     |
| CHIRALPAK IB N-10 | 88♦94                   | 88♦22          | 88♦24     | 88♦25     |
| CHIRALPAK IC-10   | 83♦94                   | 83♦22          | 83♦24     | 83♦25     |
| CHIRALPAK ID-10   | 84♦94                   | 84♦22          | 84♦24     | 84♦25     |
| CHIRALPAK IE-10   | 85♦94                   | 85♦22          | 85♦24     | 85♦25     |
| CHIRALPAK IF-10   | 86♦94                   | 86♦22          | 86♦24     | 86♦25     |
| CHIRALPAK IG-10   | 87♦94                   | 87♦22          | 87♦24     | 87♦25     |
| CHIRALPAK IH-10   | 89♦94                   | 89♦22          | 89♦24     | 89♦25     |
| CHIRALPAK IJ-10   | 90♦94                   | 90♦22          | 90♦24     | 90♦25     |
| CHIRALPAK IK-10   | 91♦94                   | 91♦22          | 91♦24     | 91♦25     |

### LEGEND

♦ = Indicate choice of: Example:

E - Tested in Normal Phase 80E94

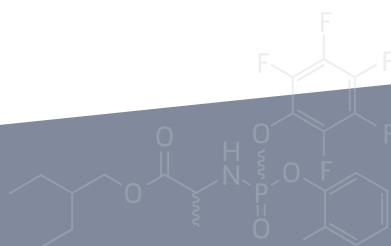
F - Tested in Reversed-Phase 80F94

G - Tested in SFC mode 80G94

## COATED ANALYTICAL COLUMNS - 10 µm 2.1 mm I.D. AND 4.6 mm I.D.

OPTIMIZED FOR SFC

| PRODUCT NAME        | I.D. (mm) x LENGTH (mm) |                |           |           |
|---------------------|-------------------------|----------------|-----------|-----------|
|                     | 2.1 x 150               | 4.6 x 50 Guard | 4.6 x 150 | 4.6 x 250 |
| CHIRALCEL OD-10/SFC | 14G94                   | 14G22          | 14G24     | 14G25     |
| CHIRALCEL OJ-10/SFC | 17G94                   | 17G22          | 17G24     | 17G25     |
| CHIRALPAK AD-10/SFC | 19G94                   | 19G22          | 19G24     | 19G25     |
| CHIRALPAK AS-10/SFC | 20G94                   | 20G22          | 20G24     | 20G25     |
| CHIRALPAK OZ-10/SFC | 42G94                   | 42G22          | 42G24     | 42G25     |
| CHIRALPAK AY-10/SFC | 47G94                   | 47G22          | 47G24     | 47G25     |
| CHIRALPAK AZ-10/SFC | 61G94                   | 61G22          | 61G24     | 61G25     |
| CHIRALCEL OX-10/SFC | 63G94                   | 63G22          | 63G24     | 63G25     |



Please call us for your custom column needs.

**1-800-6CHIRAL**

# 10 MICRON OPTIMIZED FOR SFC

## IMMOBILIZED SEMI-PREP AND PREP COLUMNS - 10 µm

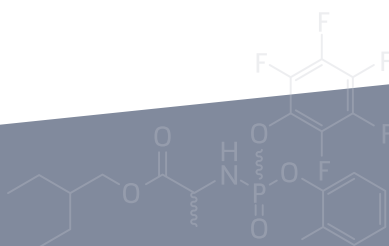
OPTIMIZED FOR SFC

| PRODUCT NAME          | I.D. (mm) x LENGTH (mm) |          |          |          |
|-----------------------|-------------------------|----------|----------|----------|
|                       | 10 x 250                | 21 x 250 | 30 x 250 | 50 x 250 |
| CHIRALPAK IA-10/SFC   | 80G35                   | 80G45    | 80G75    | 80G55    |
| CHIRALPAK IB N-10/SFC | 88G35                   | 88G45    | 88G75    | 88G55    |
| CHIRALPAK IC-10/SFC   | 83G35                   | 83G45    | 83G75    | 83G55    |
| CHIRALPAK ID-10/SFC   | 84G35                   | 84G45    | 84G75    | 84G55    |
| CHIRALPAK IE-10/SFC   | 85G35                   | 85G45    | 85G75    | 85G55    |
| CHIRALPAK IF-10/SFC   | 86G35                   | 86G45    | 86G75    | 86G55    |
| CHIRALPAK IG-10/SFC   | 87G35                   | 87G45    | 87G75    | 87G55    |
| CHIRALPAK IH-10/SFC   | 89G35                   | 89G45    | 89G75    | 89G55    |
| CHIRALPAK IJ-10/SFC   | 90G35                   | 90G45    | 90G75    | 90G55    |
| CHIRALPAK IK-10/SFC   | 91G35                   | 91G45    | 91G75    | 91G55    |

## COATED SEMI-PREP AND PREP COLUMNS - 10 µm

OPTIMIZED FOR SFC

| PRODUCT NAME        | I.D. (mm) x LENGTH (mm) |          |          |          |
|---------------------|-------------------------|----------|----------|----------|
|                     | 10 x 250                | 21 x 250 | 30 x 250 | 50 x 250 |
| CHIRALCEL OD-10/SFC | 14G35                   | 14G45    | 14G75    | 14G55    |
| CHIRALCEL OJ-10/SFC | 17G35                   | 17G45    | 17G75    | 17G55    |
| CHIRALPAK AD-10/SFC | 19G35                   | 19G45    | 19G75    | 19G55    |
| CHIRALPAK AS-10/SFC | 20G35                   | 20G45    | 20G75    | 20G55    |
| CHIRALCEL OZ-10/SFC | 42G35                   | 42G45    | 42G75    | 42G55    |
| CHIRALPAK AY-10/SFC | 47G35                   | 47G45    | 47G75    | 47G55    |
| CHIRALPAK AZ-10/SFC | 61G35                   | 61G45    | 61G75    | 61G55    |
| CHIRALCEL OX-10/SFC | 63G35                   | 63G45    | 63G75    | 63G55    |



Please call us for your custom column needs.

**1-800-6CHIRAL**

# 10 MICRON OPTIMIZED FOR HPLC

## COATED ANALYTICAL COLUMNS - 10 µm 2.1 mm I.D.

OPTIMIZED FOR HPLC (NORMAL PHASE)

| PRODUCT NAME | LENGTH (mm) |
|--------------|-------------|
|              | 150         |
| CHIRALCEL OD | 14094       |
| CHIRALCEL OJ | 17094       |
| CHIRALPAK AD | 19094       |
| CHIRALPAK AS | 20094       |

## COATED ANALYTICAL COLUMNS - 10 µm 4.6 mm I.D.

OPTIMIZED FOR HPLC (NORMAL PHASE AND/OR REVERSED-PHASE)

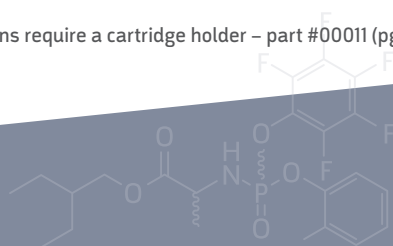
| PRODUCT NAME                    | LENGTH (mm) |                      |       |
|---------------------------------|-------------|----------------------|-------|
|                                 | 50 Guard    | 150                  | 250   |
| NORMAL PHASE                    |             |                      |       |
| CHIRALCEL OD                    | 14022       | 14024                | 14025 |
| CHIRALCEL OA                    | 11022       | 11024                | 11025 |
| CHIRALCEL OB                    | 12022       | 12024                | 12025 |
| CHIRALCEL OC                    | 13022       | 13024                | 13025 |
| CHIRALCEL OF                    | 15022       | 15024                | 15025 |
| CHIRALCEL OG                    | 16022       | 16024                | 16025 |
| CHIRALCEL OK                    | 18022       | 18024                | 18025 |
| NORMAL PHASE AND REVERSED-PHASE |             |                      |       |
| CHIRALCEL OJ                    | 17022       | 17024                | 17025 |
| CHIRALPAK AD                    | 19022       | 19024                | 19025 |
| CHIRALPAK AS                    | 20022       | 20024                | 20025 |
| CHIRALPAK AY                    | 47022       | 47024                | 47025 |
| CHIRALPAK AZ                    | 61022       | 61024                | 61025 |
| PRODUCT NAME                    | LENGTH (mm) | GUARD CARTRIDGES (3) |       |
|                                 | 250         | 4.0 x 10*            |       |
| REVERSED-PHASE ONLY             |             |                      |       |
| CHIRALCEL OD-R                  | 14625       | 14611                | -     |

## COATED SEMI-PREP AND PREP COLUMNS - 10 µm

OPTIMIZED FOR HPLC (NORMAL PHASE)

| PRODUCT NAME | I.D. (mm) x LENGTH (mm) |          |               |          |               |          |
|--------------|-------------------------|----------|---------------|----------|---------------|----------|
|              | 10 x 50 Guard           | 10 x 250 | 20 x 50 Guard | 20 x 250 | 30 x 50 Guard | 30 x 250 |
| CHIRALCEL OD | 14032                   | 14035    | 14042         | 14045    | 14072         | 14075    |
| CHIRALCEL OJ | 17032                   | 17035    | 17042         | 17045    | 17072         | 17075    |
| CHIRALPAK AD | 19032                   | 19035    | 19042         | 19045    | 19072         | 19075    |
| CHIRALPAK AS | 20032                   | 20035    | 20042         | 20045    | 20072         | 20075    |
| CHIRALPAK AY | 47032                   | 47035    | 47042         | 47045    | 47072         | 47075    |
| CHIRALPAK AZ | 61032                   | 61035    | 61042         | 61045    | 61072         | 61075    |

\* All Guard Cartridges for analytical columns require a cartridge holder – part #00011 (pg. 29).



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**1-800-6CHIRAL**

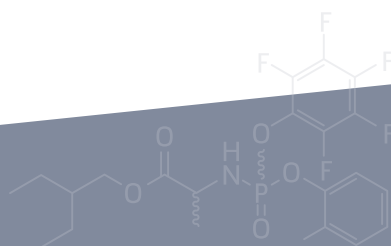
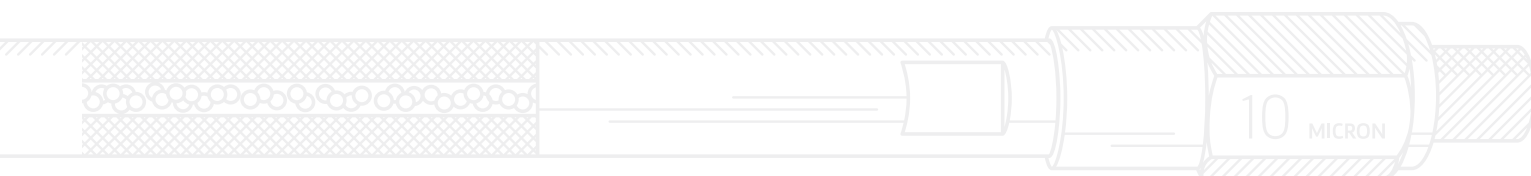


# 10 MICRON

## 10µm BULK CSP

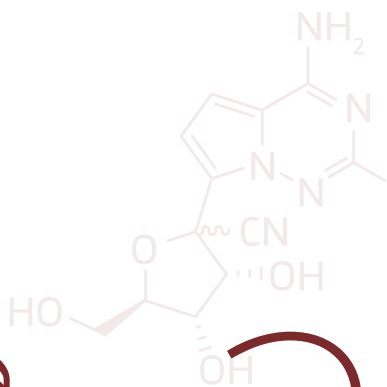
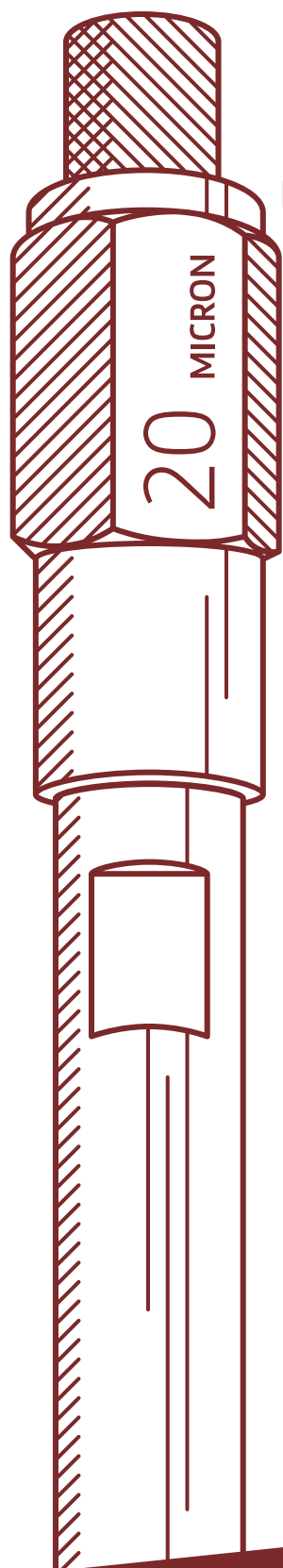
COMPATIBLE WITH HPLC (NORMAL PHASE AND REVERSED-PHASE) AND SFC

| PRODUCT NAME                                       | QUANTITY |
|----------------------------------------------------|----------|
|                                                    | 1 kg     |
| IMMOBILIZED - NORMAL PHASE, REVERSED-PHASE AND SFC |          |
| CHIRALPAK IA-10                                    | 8000E    |
| CHIRALPAK IB N-10                                  | 8800E    |
| CHIRALPAK IC-10                                    | 8300E    |
| CHIRALPAK ID-10                                    | 8400E    |
| CHIRALPAK IE-10                                    | 8500E    |
| CHIRALPAK IF-10                                    | 8600E    |
| CHIRALPAK IG-10                                    | 8700E    |
| CHIRALPAK IH-10                                    | 8900E    |
| CHIRALPAK IJ-10                                    | 9000E    |
| CHIRALPAK IK-10                                    | 9100E    |
| COATED - NORMAL PHASE, REVERSED-PHASE AND SFC      |          |
| CHIRALCEL OD-10                                    | 1400E    |
| CHIRALCEL OJ-10                                    | 1700E    |
| CHIRALPAK AD-10                                    | 1900E    |
| CHIRALPAK AS-10                                    | 2000E    |
| CHIRALCEL OZ-10                                    | 4200E    |
| CHIRALPAK AY-10                                    | 4700E    |
| CHIRALPAK AZ-10                                    | 6100E    |
| CHIRALCEL OX-10                                    | 6300E    |



Please call us for your custom column needs.

**1-800-6CHIRAL**



# 20 MICRON

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## IMMOBILIZED ANALYTICAL SCALE COLUMNS

20  $\mu$ m 4.6 mm I.D.

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## COATED ANALYTICAL SCALE COLUMNS

20  $\mu$ m 4.6 mm I.D.

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## IMMOBILIZED PREP COLUMNS

20  $\mu$ m

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## COATED PREP COLUMNS

20  $\mu$ m

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## BULK CSP

20  $\mu$ m

Page 20

## 20 MICRON

### IMMOBILIZED ANALYTICAL SCALE COLUMNS (FOR PREP-METHOD DEVELOPMENT) - 20 µm 4.6 mm I.D.

COMPATIBLE WITH HPLC

(NORMAL PHASE AND REVERSED-PHASE)

| PRODUCT NAME      | LENGTH (mm) |
|-------------------|-------------|
|                   | <b>250</b>  |
| CHIRALPAK IA      | 80225       |
| CHIRALPAK IB N-20 | 88225       |
| CHIRALCEL OD-I    | 82225       |
| CHIRALPAK IC      | 83225       |
| CHIRALPAK ID      | 84225       |
| CHIRALPAK IE      | 85225       |
| CHIRALPAK IF      | 86225       |
| CHIRALPAK IG      | 87225       |
| CHIRALPAK IH      | 89225       |
| CHIRALPAK IJ      | 90225       |
| CHIRALPAK IK      | 91225       |

### IMMOBILIZED PREP COLUMNS - 20 µm

COMPATIBLE WITH HPLC

(NORMAL PHASE AND REVERSED-PHASE)

| PRODUCT NAME      | I.D. (mm) x LENGTH (mm) |
|-------------------|-------------------------|
|                   | <b>50 x 500</b>         |
| CHIRALPAK IA      | 80256                   |
| CHIRALPAK IB N-20 | 88256                   |
| CHIRALCEL OD-I    | 82256                   |
| CHIRALPAK IC      | 83256                   |
| CHIRALPAK ID      | 84256                   |
| CHIRALPAK IE      | 85256                   |
| CHIRALPAK IF      | 86256                   |
| CHIRALPAK IG      | 87256                   |
| CHIRALPAK IH      | 89256                   |
| CHIRALPAK IJ      | 90256                   |
| CHIRALPAK IK      | 91256                   |
|                   | <b>100 x 500</b>        |
| CHIRALPAK IA      | 80266                   |
| CHIRALPAK IB N-20 | 88266                   |
| CHIRALCEL OD-I    | 82266                   |
| CHIRALPAK IC      | 83266                   |
| CHIRALPAK ID      | 84266                   |
| CHIRALPAK IE      | 85266                   |
| CHIRALPAK IF      | 86266                   |
| CHIRALPAK IG      | 87266                   |
| CHIRALPAK IH      | 89266                   |
| CHIRALPAK IJ      | 90266                   |
| CHIRALPAK IK      | 91266                   |

### COATED ANALYTICAL SCALE COLUMNS (FOR PREP-METHOD DEVELOPMENT) - 20 µm 4.6 mm I.D.

COMPATIBLE WITH HPLC

(NORMAL PHASE)

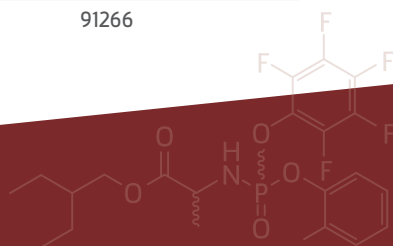
| PRODUCT NAME | LENGTH (mm) |
|--------------|-------------|
|              | <b>250</b>  |
| CHIRALCEL OD | 14225       |
| CHIRALCEL OJ | 17225       |
| CHIRALPAK AD | 19225       |
| CHIRALPAK AS | 20225       |
| CHIRALCEL OZ | 42225       |
| CHIRALPAK AY | 47225       |
| CHIRALPAK AZ | 61225       |
| CHIRALCEL OX | 63225       |

### COATED PREP COLUMNS - 20 µm

COMPATIBLE WITH HPLC

(NORMAL PHASE)

| PRODUCT NAME | I.D. (mm) x LENGTH (mm) |
|--------------|-------------------------|
|              | <b>50 x 500</b>         |
| CHIRALCEL OD | 14256                   |
| CHIRALCEL OJ | 17256                   |
| CHIRALPAK AD | 19256                   |
| CHIRALPAK AS | 20256                   |
| CHIRALCEL OZ | 42256                   |
| CHIRALPAK AY | 47256                   |
| CHIRALPAK AZ | 61256                   |
| CHIRALCEL OX | 63256                   |
|              | <b>100 x 500</b>        |
| CHIRALCEL OD | 14266                   |
| CHIRALCEL OJ | 17266                   |
| CHIRALPAK AD | 19266                   |
| CHIRALPAK AS | 20266                   |
| CHIRALCEL OZ | 42266                   |
| CHIRALPAK AY | 47266                   |
| CHIRALPAK AZ | 61266                   |
| CHIRALCEL OX | 63266                   |



Please call us for your custom column needs.

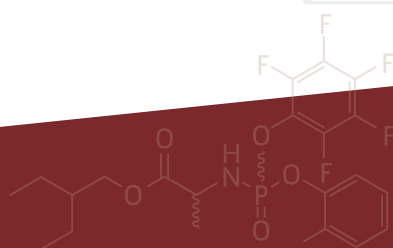
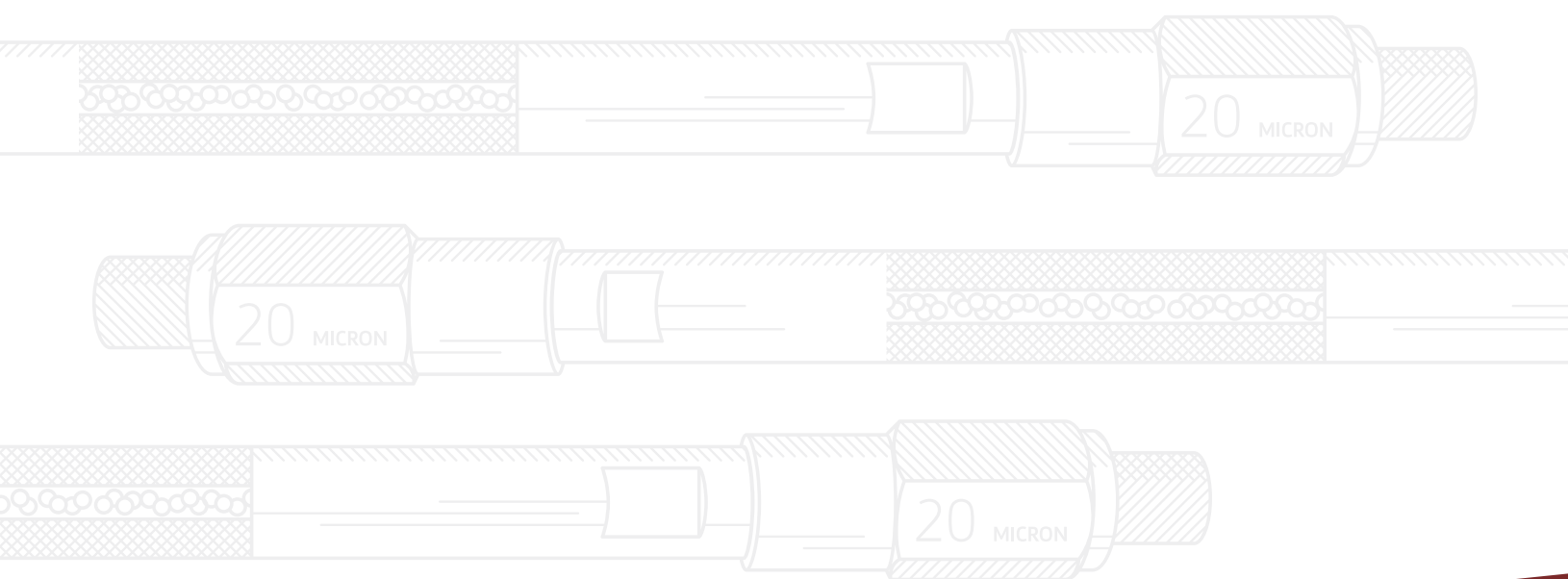
**1-800-6CHIRAL**

# 20 MICRON

## 20 µm BULK CSP

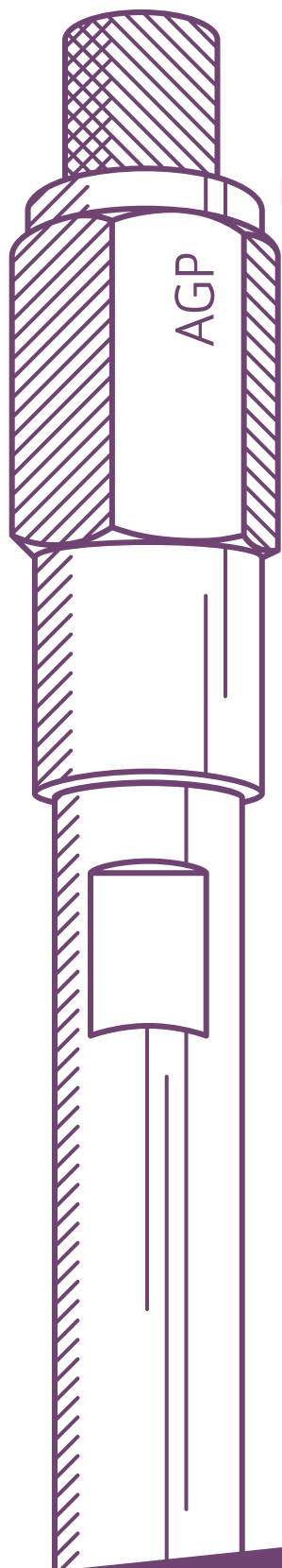
COMPATIBLE WITH HPLC (NORMAL PHASE AND REVERSED-PHASE)

| PRODUCT NAME                                  | QUANTITY |       |
|-----------------------------------------------|----------|-------|
|                                               | 1 kg     | 100 g |
| IMMOBILIZED - NORMAL PHASE AND REVERSED-PHASE |          |       |
| CHIRALPAK IA                                  | 80020    | 80021 |
| CHIRALPAK IB N-20                             | 88020    | 88021 |
| CHIRALCEL OD-I                                | 82020    | 82021 |
| CHIRALPAK IC                                  | 83020    | 83021 |
| CHIRALPAK ID                                  | 84020    | 84021 |
| CHIRALPAK IE                                  | 85020    | 85021 |
| CHIRALPAK IF                                  | 86020    | 86021 |
| CHIRALPAK IG                                  | 87020    | 87021 |
| CHIRALPAK IH                                  | 89020    | 89021 |
| CHIRALPAK IJ                                  | 90020    | 90021 |
| CHIRALPAK IK                                  | 91020    | 91021 |
| COATED - NORMAL PHASE AND REVERSED-PHASE      |          |       |
| CHIRALCEL OD                                  | 14020    | 14021 |
| CHIRALCEL OJ                                  | 17020    | 17021 |
| CHIRALPAK AD                                  | 19020    | 19021 |
| CHIRALPAK AS                                  | 20020    | 20021 |
| CHIRALCEL OZ                                  | 42020    | 42021 |
| CHIRALPAK AY                                  | 47020    | 47021 |
| CHIRALPAK AZ                                  | 61020    | 61021 |
| CHIRALCEL OX                                  | 63020    | 63021 |



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# IMMOBILIZED PROTEIN-BASED COLUMNS

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## IMMOBILIZED PROTEIN-BASED COLUMNS

|                       |         |
|-----------------------|---------|
| 5 $\mu$ m 2.1 mm I.D. | Page 22 |
| 5 $\mu$ m 3.0 mm I.D. | Page 22 |
| 5 $\mu$ m 4.0 mm I.D. | Page 22 |

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## IMMOBILIZED PROTEIN-BASED SEMI-PREP COLUMNS

|                    |         |
|--------------------|---------|
| 5 $\mu$ m          | Page 23 |
| Column Accessories | Page 23 |

# IMMOBILIZED PROTEIN-BASED COLUMNS

## IMMOBILIZED PROTEIN-BASED COLUMNS - 5 $\mu$ m 2.1 mm I.D

COMPATIBLE WITH HPLC (REVERSED-PHASE)

| PRODUCT NAME  | LENGTH (mm) |       |       | GUARD CARTRIDGES (2) |
|---------------|-------------|-------|-------|----------------------|
|               | 50          | 100   | 150   | 2.0 x 10*            |
| CHIRALPAK AGP | 30792       | 30793 | 30794 | 30791                |
| CHIRALPAK CBH | 33792       | 33793 | 33794 | 33791                |
| CHIRALPAK HSA | 34792       | 34793 | 34794 | 34791                |
| CHIRALPAK BSA | 35792       | -     | -     | -                    |
| CHIRALPAK DSA | 36792       | -     | -     | -                    |
| CHIRALPAK RSA | 38792       | -     | -     | -                    |

## IMMOBILIZED PROTEIN-BASED COLUMNS - 5 $\mu$ m 3.0 mm I.D

COMPATIBLE WITH HPLC (REVERSED-PHASE)

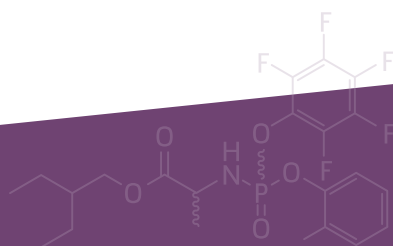
| PRODUCT NAME  | LENGTH (mm) |       |       | GUARD CARTRIDGES (2) |
|---------------|-------------|-------|-------|----------------------|
|               | 50          | 100   | 150   | 3.0 x 10*            |
| CHIRALPAK AGP | 30782       | 30783 | 30784 | 30781                |
| CHIRALPAK CBH | 33782       | 33783 | 33784 | 33781                |
| CHIRALPAK HSA | 34782       | 34783 | 34784 | 34781                |
| CHIRALPAK BSA | 35782       | -     | -     | -                    |
| CHIRALPAK DSA | 36782       | -     | -     | -                    |
| CHIRALPAK MSA | 37782       | -     | -     | -                    |
| CHIRALPAK RSA | 38782       | -     | -     | -                    |
| CHIRALPAK PSA | 43782       | -     | -     | -                    |

## IMMOBILIZED PROTEIN-BASED COLUMNS - 5 $\mu$ m 4.0 mm I.D

COMPATIBLE WITH HPLC (REVERSED-PHASE)

| PRODUCT NAME  | LENGTH (mm) |       |       | GUARD CARTRIDGES (2) |
|---------------|-------------|-------|-------|----------------------|
|               | 50          | 100   | 150   | 4.0 x 10*            |
| CHIRALPAK AGP | 30712       | 30713 | 30714 | 30711                |
| CHIRALPAK CBH | 33712       | 33713 | 33714 | 33711                |
| CHIRALPAK HSA | 34712       | 34713 | 34714 | 34711                |
| CHIRALPAK BSA | 35712       | -     | 35714 | -                    |
| CHIRALPAK DSA | 36712       | -     | 36714 | -                    |
| CHIRALPAK MSA | 37712       | -     | -     | -                    |
| CHIRALPAK RSA | 38712       | -     | 38714 | -                    |
| CHIRALPAK PSA | 43712       | -     | -     | -                    |

\* All Guard Cartridges for Immobilized Protein-Based Columns require a cartridge holder - part #00081 (pg. 23).



Please call us for your custom column needs.

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# IMMOBILIZED PROTEIN-BASED COLUMNS

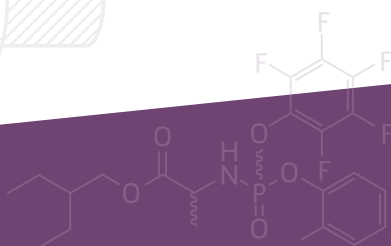
## IMMOBILIZED PROTEIN-BASED COLUMNS - SEMI-PREP COLUMNS - 5 $\mu$ m

COMPATIBLE WITH HPLC (REVERSED-PHASE)

| PRODUCT NAME  | I.D. (mm) x LENGTH (mm) |          |
|---------------|-------------------------|----------|
|               | 10 x 100                | 10 x 150 |
| CHIRALPAK AGP | 30733                   | 30734    |
| CHIRALPAK CBH | 33733                   | 33734    |
| CHIRALPAK HSA | 34733                   | 34734    |

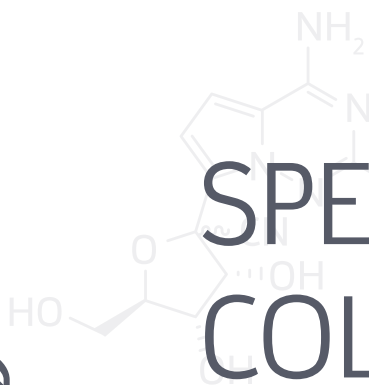
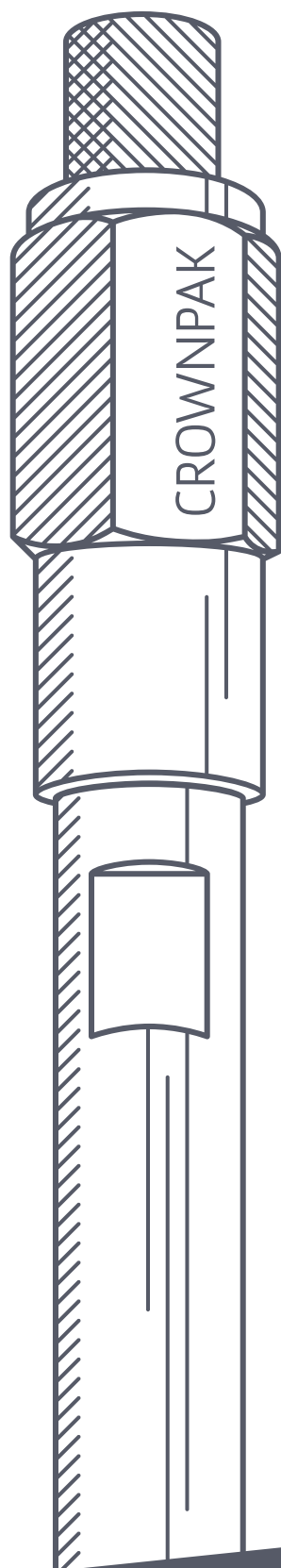
## IMMOBILIZED PROTEIN-BASED COLUMN ACCESSORIES

| PRODUCT NAME               |       |
|----------------------------|-------|
| GUARD CARTRIDGE HOLDER     | 00081 |
| GUARD COLUMN COUPLER       | 000D1 |
| GUARD COLUMN MICRO-COUPLER | 000D2 |



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**1-800-6CHIRAL**



# SPECIALTY COLUMNS

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## ZWITTERIONIC COLUMNS

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5  $\mu\text{m}$  Page 25

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## ANION EXCHANGE COLUMNS

5  $\mu\text{m}$  Page 25

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## IMMOBILIZED CROWN ETHER COLUMNS

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## COATED CROWN ETHER COLUMNS

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LIGAND EXCHANGE COLUMNS Page 26

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## IMMOBILIZED MPLC COLUMNS

20  $\mu\text{m}$  Page 26

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## IMMOBILIZED CHIRAL TLC PLATES

20  $\mu\text{m}$  Page 26



# SPECIALTY COLUMNS

## ZWITTERIONIC COLUMNS - ANALYTICAL - 3 $\mu$ m

COMPATIBLE WITH HPLC (POLAR ORGANIC PHASE AND HYDRO-ORGANIC PHASE) AND SFC

| PRODUCT NAME      | I.D. (mm) x LENGTH (mm) |           |           |           |
|-------------------|-------------------------|-----------|-----------|-----------|
|                   | 3.0 x 150               | 3.0 x 250 | 4.0 x 150 | 4.0 x 250 |
| CHIRALPAK ZWIX(+) | 51584                   | 51585     | 51514     | 51515     |
| CHIRALPAK ZWIX(-) | 52584                   | 52585     | 52514     | 52515     |

## ZWITTERIONIC COLUMNS - SEMI-PREP - 5 $\mu$ m

COMPATIBLE WITH HPLC (POLAR ORGANIC PHASE AND HYDRO-ORGANIC PHASE) AND SFC

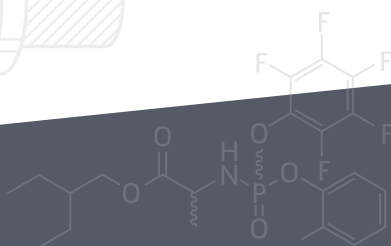
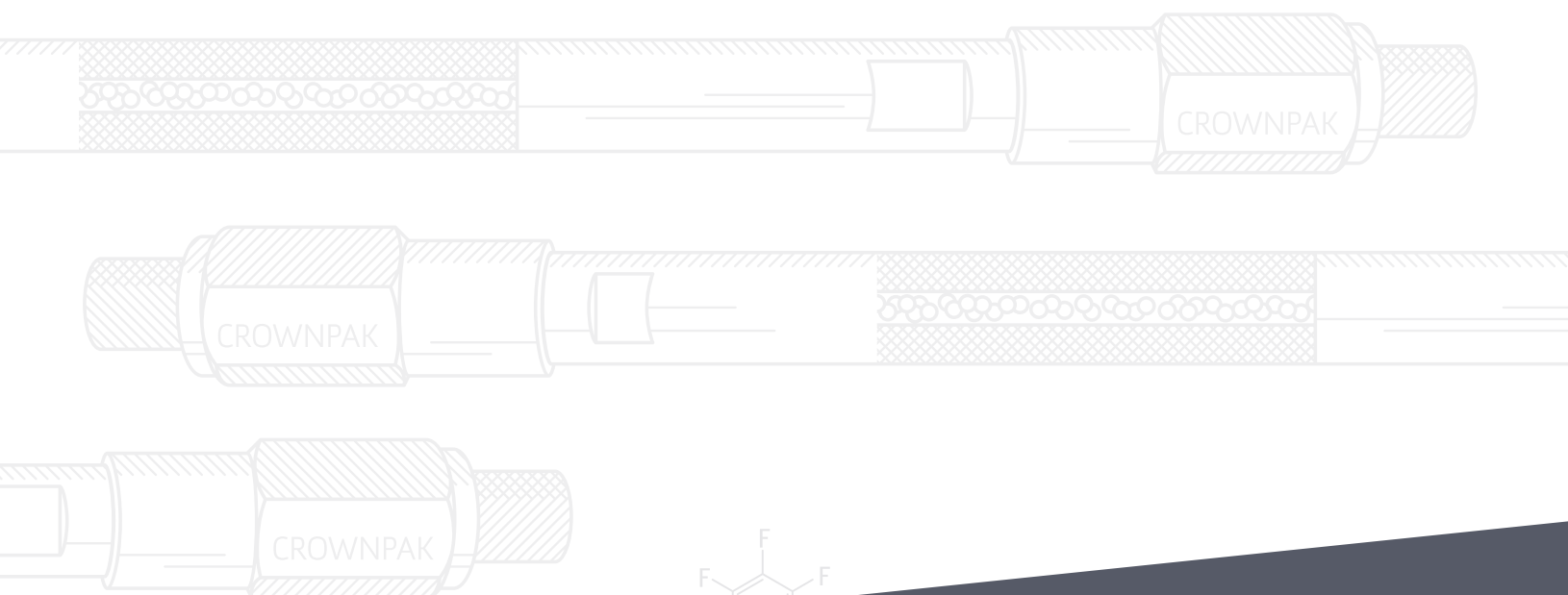
| PRODUCT NAME      | I.D. (mm) x LENGTH (mm) |          |          |          |
|-------------------|-------------------------|----------|----------|----------|
|                   | 10 x 150                | 10 x 250 | 21 x 150 | 21 x 250 |
| CHIRALPAK ZWIX(+) | 51334                   | 51335    | 51344    | 51345    |
| CHIRALPAK ZWIX(-) | 52334                   | 52335    | 52344    | 52345    |

## ANION EXCHANGE COLUMNS - 5 $\mu$ m

COMPATIBLE WITH HPLC (POLAR ORGANIC PHASE AND HYDRO-ORGANIC PHASE) AND SFC

| PRODUCT NAME    | I.D. (mm) x LENGTH (mm) |           |                      |                |               |
|-----------------|-------------------------|-----------|----------------------|----------------|---------------|
|                 | ANALYTICAL              |           | GUARD CARTRIDGES (3) | HPLC SEMI-PREP | SFC SEMI-PREP |
|                 | 2.1 x 150               | 4.6 x 150 | 4.0 x 10*            | 21 x 150       | 21 x 150      |
| CHIRALPAK QD-AX | 31394                   | 31324     | 31311                | 31344          | 31444         |
| CHIRALPAK QN-AX | 32394                   | 32324     | 32311                | 32344          | 32444         |

\* All Guard Cartridges for analytical columns require a cartridge holder – part #00011 (pg. 29).



Please call us for your custom column needs.

**1-800-6CHIRAL**

# SPECIALTY COLUMNS

## IMMOBILIZED CROWN ETHER COLUMNS - 5 µm

COMPATIBLE WITH HPLC (NORMAL PHASE AND REVERSED-PHASE)

| PRODUCT NAME     | I.D. (mm) x LENGTH (mm) |
|------------------|-------------------------|
|                  | ANALYTICAL              |
|                  | 3.0 x 150               |
| CROWNPAK CR-I(+) | 53784                   |
| CROWNPAK CR-I(-) | 54784                   |

## COATED CROWN ETHER COLUMNS - 5 µm

COMPATIBLE WITH HPLC (REVERSED-PHASE)

| PRODUCT NAME   | I.D. (mm) x LENGTH (mm) |              |
|----------------|-------------------------|--------------|
|                | ANALYTICAL              | GUARD COLUMN |
|                | 4.0 x 150               | 4.0 x 10     |
| CROWNPAK CR    | -                       | 27711        |
| CROWNPAK CR(+) | 27714                   | -            |
| CROWNPAK CR(-) | 28714                   | -            |

## LIGAND EXCHANGE COLUMNS - ANALYTICAL

COMPATIBLE WITH HPLC (REVERSED-PHASE)

| PRODUCT NAME       | PARTICLE SIZE (µm) |    | I.D. (mm) | LENGTH (mm) |
|--------------------|--------------------|----|-----------|-------------|
| CHIRALPAK MA(+)    | 21822              | 3  | 4.6       | 50          |
| CHIRALPAK WH GUARD | 25622              | 10 | 4.6       | 50          |
| CHIRALPAK WH       | 25625              | 10 | 4.6       | 250         |

## IMMOBILIZED MPLC COLUMNS METHOD DEVELOPMENT - 20 µm

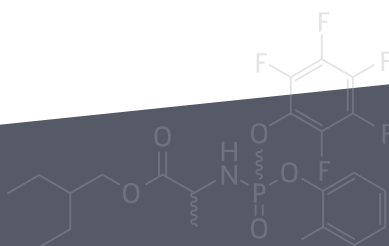
| PRODUCT NAME | I.D. (mm) x LENGTH (mm) |
|--------------|-------------------------|
|              | 4.6 x 100               |
| CHIRALPAK IA | 80223                   |
| CHIRALPAK IC | 83223                   |
| CHIRALPAK ID | 84223                   |
| CHIRALPAK IE | 85223                   |
| CHIRALPAK IF | 86223                   |
| CHIRALPAK IG | 87223                   |

## IMMOBILIZED MPLC COLUMNS SEMI-PREP - 20 µm

| PRODUCT NAME   | I.D. (mm) x LENGTH (mm) |
|----------------|-------------------------|
|                | 30 x 100                |
| CHIRALFLASH IA | 80M73                   |
| CHIRALFLASH IC | 83M73                   |
| CHIRALFLASH ID | 84M73                   |
| CHIRALFLASH IE | 85M73                   |
| CHIRALFLASH IF | 86M73                   |
| CHIRALFLASH IG | 87M73                   |

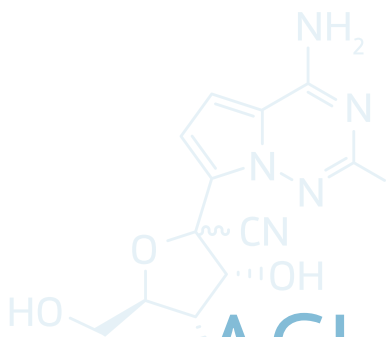
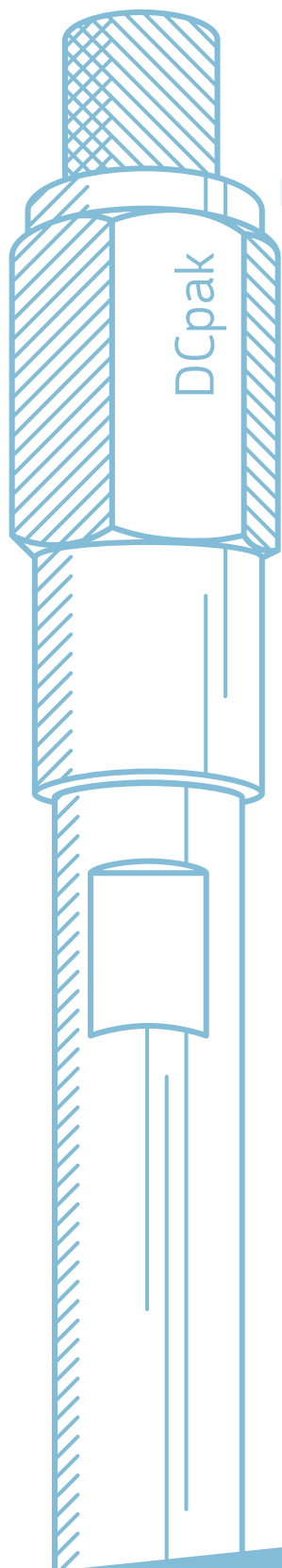
## IMMOBILIZED CHIRAL TLC PLATES METHOD DEVELOPMENT - 20 µm

| PRODUCT NAME                  | I.D. (mm) x LENGTH (mm) |
|-------------------------------|-------------------------|
|                               | 200 x 100               |
| 2L-ChiralTLC 5 (5-pkg/1 each) | 5ST5A                   |
| 2L-ChiralTLC IA (2-pkg)       | 80T2A                   |
| 2L-ChiralTLC IC (2-pkg)       | 83T2A                   |
| 2L-ChiralTLC ID (2-pkg)       | 84T2A                   |
| 2L-ChiralTLC IE (2-pkg)       | 85T2A                   |
| 2L-ChiralTLC IF (2-pkg)       | 86T2A                   |



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**1-800-6CHIRAL**



# ACHIRAL COLUMNS

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## ANALYTICAL COLUMNS

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## SEMI-PREP AND PREP COLUMNS

5  $\mu\text{m}$  Page 28

# ACHIRAL COLUMNS

## ACHIRAL COLUMNS - ANALYTICAL - 3 $\mu$ m

COMPATIBLE WITH HPLC (NORMAL PHASE AND REVERSED-PHASE) AND SFC

| PRODUCT NAME | I.D. (mm) x LENGTH (mm) |           |           |           |
|--------------|-------------------------|-----------|-----------|-----------|
|              | 2.1 x 50                | 2.1 x 100 | 2.1 x 150 |           |
| DCpak PBT    | AAS92                   | AAS93     | AAS94     |           |
| DCpak P4VP   | ABS92                   | ABS93     | ABS94     |           |
| DCpak PTZ    | AC592                   | AC593     | AC594     |           |
|              | 3.0 x 50                | 3.0 x 100 | 3.0 x 150 |           |
| DCpak PBT    | AAS82                   | AAS83     | AAS84     |           |
| DCpak P4VP   | ABS82                   | ABS83     | ABS84     |           |
| DCpak PTZ    | AC582                   | AC583     | AC584     |           |
| PRODUCT NAME | I.D. (mm) x LENGTH (mm) |           |           |           |
|              | 4.6 x 50                | 4.6 x 100 | 4.6 x 150 | 4.6 x 250 |
| DCpak PBT    | AAS22                   | AAS23     | AAS24     | AAS25     |
| DCpak P4VP   | ABS22                   | ABS23     | ABS24     | ABS25     |
| DCpak PTZ    | AC522                   | AC523     | AC524     | AC525     |

## ACHIRAL COLUMNS - ANALYTICAL - 5 $\mu$ m

COMPATIBLE WITH HPLC (NORMAL PHASE AND REVERSED-PHASE) AND SFC

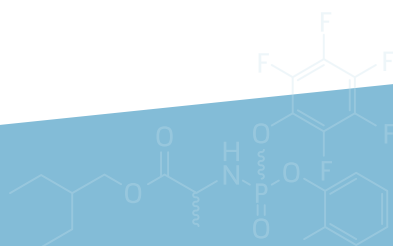
| PRODUCT NAME | I.D. (mm) x LENGTH (mm) |           |           |           |
|--------------|-------------------------|-----------|-----------|-----------|
|              | 2.1 x 150               | 2.1 x 250 | 4.6 x 150 | 4.6 x 250 |
| DCpak PBT    | AA494                   | AA495     | AA424     | AA425     |
| DCpak P4VP   | AB494                   | AB495     | AB424     | AB425     |
| DCpak PTZ    | AC394                   | AC395     | AC324     | AC325     |
| DCpak PMPC   | AD394                   | AD395     | AD324     | AD325     |

## ACHIRAL COLUMNS - SEMI-PREP AND PREP - 5 $\mu$ m

COMPATIBLE WITH HPLC (NORMAL PHASE AND REVERSED-PHASE) AND SFC

| PRODUCT NAME | I.D. (mm) x LENGTH (mm) |          |          |          |
|--------------|-------------------------|----------|----------|----------|
|              | 10 x 250                | 20 x 250 | 30 x 250 | 50 x 250 |
| DCpak PBT    | AA435                   | AA445    | AA475    | AA455    |
| DCpak P4VP   | AB435                   | AB445    | AB475    | AB455    |
| DCpak PTZ    | AC335                   | AC345    | AC375    | AC355    |
| DCpak PMPC   | AD335                   | AD345    | AD375    | AD355    |

\* All Guard Cartridges for analytical columns require a cartridge holder – part #00011 (pg. 29).

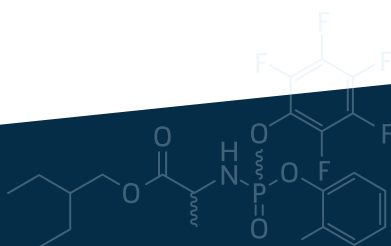


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# COLUMN ACCESSORIES

| COLUMN ACCESSORIES                                                    |                                              |             |           |             |
|-----------------------------------------------------------------------|----------------------------------------------|-------------|-----------|-------------|
| PRODUCT NAME                                                          | PRODUCT TYPE                                 | PART NUMBER | I.D. (mm) | LENGTH (mm) |
| Cartridge Holder                                                      | Holder                                       | 00011       | 4.0       | 10          |
| Column Jacket, 15 cm                                                  | Jacket                                       | 00024       | 4.6       | 150         |
| Column Jacket, 25 cm                                                  | Jacket                                       | 00025       | 4.6       | 250         |
| Pre Column Filter Assembly                                            | Holder and Filter                            | 00060       | 21.2      | -           |
| Pre Column Filter, 2 micron                                           | Replacement Filter                           | 00061       | 21.2      | -           |
| Assembly O-Rings                                                      | Replacement O-Rings, set of 2                | 00062       | -         | -           |
| Guard Filter Kit (1 holder, 3 glass filters, 2 fittings and 1 tubing) | Holder, Filters (3), Fittings (2) and Tubing | FK002       | -         | -           |
| Replacement Guard Filters                                             | Guard Filters (6)                            | FR002       | -         | -           |



Please call us for your custom column needs.

**1-800-6CHIRAL**

**CHIRAL TECHNOLOGIES, INC.**  
**STANDARD TERMS AND CONDITIONS OF**  
**SALE (EFFECTIVE APRIL 1, 2002 - revised 4/2023)**

The following terms and conditions (the "Terms and Conditions") apply to all sales of chiral chromatography products (collectively, the "Products") by Chiral Technologies, Inc. ("CHIRAL") to its customers (each, a "CUSTOMER"). References to a "Party" or to the "Parties" herein shall mean either CHIRAL or CUSTOMER or each of them together. Each of the Parties agrees that it is entering into this agreement for the purpose of purchasing or selling, as the case may be, the Products, which the CUSTOMER shall only use for research purposes and not in connection with any other medical, clinical or other use. By ordering or accepting any Products from CHIRAL, CUSTOMER agrees to the foregoing and to be legally bound as follows:

**SECTION 1. FORMATION OF THE CONTRACT.** An agreement between the Parties, if made and entered into by way of a purchase order and an acceptance thereof, shall be deemed to have been made and entered into when CUSTOMER has issued a written purchase order and CHIRAL has accepted said purchase order. Any alteration and/or supplement to any purchase order shall be valid only if such alteration and/or supplement is accepted by CHIRAL.

**SECTION 2. QUOTATIONS.** Unless otherwise specified in a written statement signed by CHIRAL, no price quote by CHIRAL shall be binding. Any binding price quote given by CHIRAL shall be effective for thirty (30) days, unless otherwise specified in a written statement signed by CHIRAL.

**SECTION 3. TERMS OF PAYMENT.** CHIRAL will invoice CUSTOMER for Products upon shipment. All payments owed by CUSTOMER to CHIRAL, including, without limitation, payment for the purchase price of Products purchased, applicable taxes and cancellation charges, are payable in U.S. Dollars and will be due thirty (30) days after the invoice date of the Products. Interest shall accrue at the rate of ten percent (10%) per annum on the amount due commencing thirty (30) days after the invoice date; provided that, in the event that such interest rate violates applicable usury laws, such rate shall be reduced to the highest rate (if any) allowed by such laws.

**SECTION 4. DELIVERY OF PRODUCTS; CANCELLATION AND DELAYED ORDERS.** CHIRAL and CUSTOMER shall agree on a mutually convenient delivery schedule for Products. All Products shall be shipped F.O.B. CHIRAL's facility. Unless documented elsewhere, title of the product transfers to the buyer upon shipment. Title and invoicing for direct shipments to customers by CHIRAL's overseas affiliates will occur upon receipt of the product by the customer. CHIRAL reserves the right to ship Products prior to the agreed shipment date in order to accommodate CHIRAL's overall delivery schedules. CUSTOMER shall have no right to cancel any purchase order or to reschedule any scheduled delivery of Products covered by a purchase order, except with CHIRAL's written permission.

**SECTION 5. INSPECTION.** Upon receipt of Products, CUSTOMER shall promptly inspect such Products. If upon such inspection, CUSTOMER finds any Products to be defective, CUSTOMER shall promptly provide CHIRAL with written notification of such condition.

**SECTION 6. TRADEMARKS.** CUSTOMER shall not remove from the Products (or their packaging or documentation), or alter, any of CHIRAL's trademarks, trade names, logos, patent or copyright notices, or other notices or markings, or add any other notices or markings to the Products, without the prior express written consent of CHIRAL.

**SECTION 7. LIMITED WARRANTY.**

**A. WARRANTY TERMS.** Subject to the provisions of this Section 7 and Section 8 below, with respect to each Product sold by CHIRAL hereunder, CHIRAL warrants that for a period of one

(1) year from the date of sale (the "Warranty Period") such product will be free from defects in materials or faulty workmanship and shall comply with quality specifications for such Product published by CHIRAL. The warranties provided by CHIRAL in this Section 7.A are the only warranties provided by CHIRAL with respect to the Products sold hereunder, and may be modified or amended only by a written instrument signed by CHIRAL and accepted by CUSTOMER.

**B. WARRANTY CLAIMS.** If, during the applicable Warranty Period for a Product sold by CHIRAL hereunder, it is determined that Product does not conform to the limited warranty set forth in Section 7.A, then CUSTOMER shall notify CHIRAL of such condition and request authorization to return the Product to exercise the CUSTOMER'S warranty rights. CUSTOMER may, after obtaining a return authorization number and shipping instructions from CHIRAL, return such Product to CHIRAL. Upon receipt of any such Product during the applicable Warranty Period, CHIRAL shall, at its option and expense (1) repair or replace such Product, and ship such Product to the location from which it was returned to CHIRAL, or (2) give CUSTOMER a credit for such Product. All replaced Products or Products returned to CHIRAL for credit shall become CHIRAL's property. Repair or replacement of a Product does not extend the Warranty Period for such Product.

**C. OTHER LIMITATIONS.** THE EXPRESS LIMITED WARRANTIES OF CHIRAL STATED IN SECTION 7.A ABOVE DO NOT APPLY TO (1) PROTEIN-BASED PRODUCTS (2) PRODUCTS USED FOR MEDICAL, CLINICAL OR ANY OTHER USE OTHER THAN RESEARCH USE, (3) PRODUCTS WHICH HAVE BEEN IMPROPERLY TRANSPORTED, INSTALLED OR USED, ALTERED, MODIFIED, REPAIRED OR SERVICED IN ANY RESPECT, EXCEPT BY CHIRAL OR ITS REPRESENTATIVES, (4) PRODUCTS WHERE SERIAL NUMBERS HAVE BEEN REMOVED OR ALTERED, (5) PRODUCTS USED BY ANY PERSON OR ENTITY OTHER THAN CUSTOMER, OR (6) PRODUCTS THE INVOICE FOR WHICH HAS NOT BEEN PAID IN FULL IN ACCORDANCE WITH THE PAYMENT TERMS. NO ACTION BY CUSTOMER ARISING UNDER SECTION 7.A ABOVE OR OTHERWISE IN CONNECTION WITH THE SALE OF THE PRODUCTS MAY BE BROUGHT MORE THAN ONE (1) YEAR AFTER THE CAUSE OF ACTION FIRST ARISES.

**D. DISCLAIMER.** THE EXPRESS WARRANTIES OF CHIRAL STATED IN SECTION 7.A ABOVE ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OF THIRD PARTY RIGHTS. THE EXPRESS OBLIGATIONS OF CHIRAL STATED IN SECTION 7.A ABOVE ARE IN LIEU OF ANY OTHER LIABILITY OR OBLIGATION OF CHIRAL, INCLUDING, WITHOUT LIMITATION, ANY LIABILITY OR OBLIGATION FOR DAMAGE, LOSS OR INJURY (WHETHER DIRECT, INDIRECT, EXEMPLARY, SPECIAL, CONSEQUENTIAL OR INCIDENTAL) ARISING OUT OF OR IN CONNECTION WITH THE DELIVERY, USE OR PERFORMANCE OF THE PRODUCTS.

**SECTION 8. LIMITATION OF LIABILITY.** NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED IN THESE TERMS AND CONDITIONS: CHIRAL SHALL NOT BE LIABLE FOR ANY EXEMPLARY, SPECIAL, INDIRECT, CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND (INCLUDING, WITHOUT LIMITATION, LOST PROFITS), EVEN IF CHIRAL HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE FOREGOING STATES THE ENTIRE LIABILITY OF CHIRAL WITH REGARD TO THESE TERMS AND CONDITIONS AND THE PRODUCTS. THE LIMITATIONS OF LIABILITY CONTAINED IN SECTION 7 AND THIS SECTION 8 ARE A FUNDAMENTAL PART OF THE BASIS OF CHIRAL'S BARGAIN HEREUNDER, AND CHIRAL WOULD NOT SELL THE PRODUCTS ABSENT SUCH LIMITATIONS.

**SECTION 9. GENERAL.**

**A. ENTIRE AGREEMENT.** These Terms and Conditions constitute the final, complete and exclusive agreement between the Parties relating to the subject matter hereof, and supersede all prior or contemporaneous proposals, understandings, representations, warranties, promises and other communications, whether oral or written, relating to such subject matter (including, without limitation, any prior "Standard Terms and Conditions" published by CHIRAL). Except for agreements of the Parties set forth in writing and signed by an authorized representative of CHIRAL relating to the type, quantity, quality/specifications, delivery, forecasting schedule and pricing of any Product, any term or condition in any purchase order, confirmation or other document furnished by CUSTOMER at any time which is in any way inconsistent with or in addition to the terms and conditions set forth herein is hereby expressly rejected, and CHIRAL's acceptance of any purchase order of CUSTOMER is expressly made in reliance on CUSTOMER's assent to all terms and conditions hereof. No deviation from these Terms and Conditions shall be valid unless confirmed in writing by an authorized representative of CHIRAL.

**B. GOVERNING LAW.** These Terms and Conditions shall for all purposes be governed by and interpreted in accordance with the laws of the State of Pennsylvania without regard to any choice of law provision that would result in the application of the laws of any jurisdiction other than the internal laws of the State of Pennsylvania to these Terms and Conditions. The Parties expressly exclude application of the United Nations Convention on Contracts for the International Sale of Goods.

**C. ARBITRATION.** If a dispute arises related to the purchase and sale of the Products and the Parties have not resolved such dispute through negotiation, the Parties agree to submit the dispute to arbitration. Any arbitration proceeding relating to the Agreement shall be presided over by one arbitrator who shall be agreed to by the Parties, provided that if the Parties are unable to agree on an arbitrator, then each Party shall name one arbitrator and the two arbitrators will together designate a third arbitrator, and the three arbitrators so chosen shall preside over the arbitration proceeding. The arbitration shall be held in Pennsylvania in accordance with the rules of the American Arbitration Association. Arbitration proceedings shall be conducted in the English language. Each Party agrees that the final determination/decision of the arbitrators presiding over the proceeding shall be binding on it. Notwithstanding the foregoing, the Parties may apply to any court of competent jurisdiction for preliminary or interim equitable relief, without breach of this arbitration provision. The prevailing Party in any dispute related hereto, whether in a court of law or in arbitration, shall have its reasonable costs and expenses related to such dispute reimbursed by the non-prevailing Party.

**D. SEVERABILITY.** If any provision of these Terms and Conditions is held by a court of competent jurisdiction to be unenforceable for any reason, the remaining provisions hereof shall be unaffected and remain in full force and effect.

**E. MODIFICATIONS.** Neither Party may modify, amend, supplement or otherwise change these Terms and Conditions without the prior written consent of the other Party. Any such future modification, amendment, supplement or other change (a "Change") shall apply only with respect to orders accepted after the effective date of such Change. All waivers must be in writing.

**F. ASSIGNMENTS.** No right of either Party under these Terms and Conditions shall be assigned or otherwise transferred without the prior express written consent of the other Party, and any attempt to assign or otherwise transfer any rights hereunder, without such consent, shall be void. Subject to the preceding sentence, these Terms and Conditions shall bind the Parties hereto and their permitted successors and assigns.

**G. MISCELLANEOUS.** These Terms and Conditions are not intended to provide any rights or remedies to any person or entity other than CHIRAL and CUSTOMER and their respective permitted successors and assigns (if any).

**H. FORCE MAJEURE.** CHIRAL shall not be responsible for any failure to fulfill its obligations hereunder due to causes beyond its reasonable control, including, without limitation, as a result of fire, explosion, earthquake, storm, flood or other weather, unavailability of necessary utilities or raw materials, strike, lockout, unavailability of components, activities of a combination of workmen or other labor difficulties, war, insurrection, riot, act of God or the public enemy, law, act, order, omission, export control regulation, proclamation, decree, regulation, ordinance, or instructions of Government or other public authorities, or judgment or decree of a court of competent jurisdiction. If any such contingency occurs, CHIRAL may elect to either (a) suspend its obligations for the duration of the delaying cause, or (b) extend the time period to complete its obligations by the length of time the contingency endures. In the event of CHIRAL's inability to supply any or all of the Products due to any of the above circumstances, CHIRAL will have the right to allocate its available supply among its CUSTOMERS, or any of them, as CHIRAL, in its sole discretion, elects without liability to CUSTOMER for any failure of performance that may result therefrom. To the extent that no allocation is made to CUSTOMER, either CUSTOMER or CHIRAL will have the right to terminate any affected purchase orders by prompt written notice to the other.

**I. CONSTRUCTION AND SURVIVAL.** Notwithstanding anything to the contrary contained in herein, these Terms and Conditions shall survive the purchase and sale of the Products hereunder.



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