# Solid Phase Extraction (SPE)

## Material Characteristics

<table>
<thead>
<tr>
<th>Phase</th>
<th>Particle Size (μm)</th>
<th>Pore Size (Å)</th>
<th>Surface Area (m²/g)</th>
<th>Carbon Load (%)</th>
<th>Bonding</th>
<th>End Capping</th>
<th>Ionic Capacity (meq/g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C18-E</td>
<td>55</td>
<td>70</td>
<td>500</td>
<td>17.0</td>
<td>trifunctional</td>
<td>Yes</td>
<td>—</td>
</tr>
<tr>
<td>C18-U</td>
<td>55</td>
<td>70</td>
<td>500</td>
<td>18.0</td>
<td>trifunctional</td>
<td>No</td>
<td>—</td>
</tr>
<tr>
<td>C18-T</td>
<td>55</td>
<td>140</td>
<td>300</td>
<td>15.0</td>
<td>trifunctional</td>
<td>Yes</td>
<td>—</td>
</tr>
<tr>
<td>C8</td>
<td>55</td>
<td>70</td>
<td>500</td>
<td>10.5</td>
<td>trifunctional</td>
<td>Yes</td>
<td>—</td>
</tr>
<tr>
<td>Phenyl</td>
<td>55</td>
<td>70</td>
<td>500</td>
<td>10.5</td>
<td>trifunctional</td>
<td>Yes</td>
<td>—</td>
</tr>
<tr>
<td>CN</td>
<td>55</td>
<td>70</td>
<td>500</td>
<td>10.0</td>
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<td>1.3</td>
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<tr>
<td>NH₂</td>
<td>55</td>
<td>70</td>
<td>500</td>
<td>5.0</td>
<td>trifunctional</td>
<td>No</td>
<td>0.9</td>
</tr>
<tr>
<td>SIC</td>
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<td>70</td>
<td>500</td>
<td>9.0</td>
<td>trifunctional</td>
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<tr>
<td>WCX</td>
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<td>70</td>
<td>500</td>
<td>8.0</td>
<td>trifunctional</td>
<td>No</td>
<td>0.9</td>
</tr>
<tr>
<td>SAX</td>
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<td>70</td>
<td>500</td>
<td>6.5</td>
<td>trifunctional</td>
<td>No</td>
<td>0.9</td>
</tr>
<tr>
<td>Si-1 (Silica)</td>
<td>55</td>
<td>65</td>
<td>500</td>
<td>0.0</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<tr>
<td>FL-PR (Florisil®)</td>
<td>170</td>
<td>80</td>
<td>300</td>
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<td>—</td>
<td>—</td>
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<tr>
<td>EPIM (Extractable Petroleum Hydrocarbon)</td>
<td>200</td>
<td>70</td>
<td>proprietary</td>
<td>0.0</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<tr>
<td>AL-N (Alumina-Neutral)</td>
<td>120</td>
<td>120</td>
<td>150</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

### Polymeric
- SDV-L | 100          | 260          | 500                 | —               | —         | —            | —                   |
- Strata-X | 33           | 65           | 800                 | —               | —         | —            | —                   |
- Strata-X-C | 33          | 65           | 800                 | —               | —         | —            | 1.0                 |
- Strata-X-CW | 33         | 65           | 800                 | —               | —         | —            | 0.78                |
- Strata-X-AW | 33        | 80           | 800                 | —               | —         | —            | 0.60                |
- Strata-XL | 100         | 300          | 520                 | —               | —         | —            | —                   |
- Strata-XL-C | 100        | 300          | 520                 | —               | —         | —            | 1.0                 |

### Mixed-Mode
- Screen-C-GF | 200       | 70           | 500                 | proprietary     | —         | —            | —                   |
- Screen-C | 55              | 70           | 500                 | proprietary     | —         | —            | —                   |
- Screen-A | 55              | 70           | 500                 | proprietary     | —         | —            | —                   |
- ABN | 55              | 70           | 500                 | 7.0             | —         | —            | —                   |
- Eco-Screen | proprietary | proprietary | proprietary | —         | —         | —            | —                   |

## Phase Selection by Manufacturer

### Reversed Phase
- C18-E | C18 | C18 | DSC-18 | C18 | Octadeyl | C18 (E) | C18 | C18c
- C18-U | C18-DH | C18-DH | DSC-18 | C18 | Octadeyl Lightload | C18 | C18 | C18-RW
- C18-T | C18-EPM | DSC-18L | DSC-18L | C8 | Octyl | C8 (E) | C8 | C8
- C8 | C8 | C8 | DSC-8 | C8 | Octyl | C8 (E) | C8 | C8
- Phenyl (PH) | C8 | C8 | DSC-PH | Phenyl | C8 (E) | C8 | C8 | C8
- SDV-L | Porapak RDX | ENV | DSC-PG | LMS | DVB | H₂O-phobic DVB | 101 | HR-P | HR-P
- Strata-X | Oasis HLB | NEUS PPL | PPL | FOCUS PLEXA | StyreScreen® DVB | H₂O-phobic DVB | ENV+ | ABN | Easy | HR-X
- Strata-XL | — | — | — | — | — | — | — | — | — | —

### Normal Phase
- Si-1 (Silica) | Silica | Silica | DSC-Silica | Silica | Silica Gel | Silica | Silica | SOH
- FL-PR (Florisil®) | Florisil® | Florisil® | Florisil® | Florisil® | Florisil® | Florisil® | FL | Florisil®
- NH₂ | NH₂ | NH₂ | DSC-NH₂ | Amino Propyl | Amino | NH₂ | NH₂ | NH₂
- CN | CN | CN-U | DSC-CN | CN | Cyanope | CN | CN | CN

### Ion Exchange
- ABN | SAX | SAX | DSC-SAX | Quaternary Amine | Quaternary Amine | SAX | SB
- SCX | SCX | SCX | DSC-SCX | Benzene Sulfonic Acid | Aromatic Sulfonic Acid | SCX | SA
- Strata-X-C | Oasis MWCX | DSC-MWCX | DSC-MWCX | Aromatic Sulfonic Acid | CX
- Strata-X-CW | Oasis WXC | DSC-WXC | DSC-WXC | Aromatic Sulfonic Acid | CX
- Strata-X-AW | Oasis WAX | DSC-WAX | DSC-WAX | Aromatic Sulfonic Acid | CX
- WCX | CBA | DSC-WCX | Carboxylic Acid | Carboxylic Acid | CBA | PCA
- Screen-C | Certify I | Clean Screen DAU | Narc-2 | HX
- Screen-C-GF | Certify HX | Xtract DAU | Narc-1 | HAX
- Screen-A | Certify HX | Clean Screen THC | Narc-1 | HAX

**Recommended Alternative - This category indicates an alternative phase which may yield somewhat different selectivity but may also lead to improved resolution.**