

VertiPlate™ Prep TLC

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- **Thicker layers for higher capacity**
- **Available as 500, 1000, 1500 or 2000µm**
- **Plate sizes are available in 20x20cm, 10x20cm and 5x20cm**
- **Adsorbents are available as silica or non-silica with or without Fluorescent Indicator**

Preparative TLC plates have adsorbent layers thicker than the 250 microns. Thus, preparative plates can be used for separation of larger quantities of materials.

The loading capacity for a given degree of sample component resolution increases roughly as the square root of the adsorbent layer thickness. In preparative TLC, materials to be separated are often applied as long streaks rather than spots. After development, specific compounds may be recovered by scraping the adsorbent layers from the plate in the region of interest and eluting the separated material from the adsorbent using a strong solvent.

Soft-layer Silica plates are the kind of most widely used when recovery of the separated compounds is desirable. No organic substances have been added to these products. They are compatible with all organic solvents except solvent containing greater than 20% water.

Binder Free Silica plates contain neither inorganic nor organic binders. They are best for inorganic TLC. Activates plates at 110°C for 30min before use. A few eluents will cause the adsorbent to separate slightly from the plate in the submerged part of the layer.

Reversed phase plates are C18 bonded-silica. They are used to separate both polar and non-polar compounds by adjusting the solvent system.

Silica impregnated with 10% Silver Nitrate plates permit increased discrimination of certain compounds, particularly those containing carbon-carbon double bonds. More double or triple bonds (unsaturation) give lower R_f values. The product is light sensitive and should be stored in the dark. Activated plates at 110°C for 60min before use for improved separations.

Silica modified with 7.5% Magnesium Acetate plates decrease the acidity of the layer and allows increased discrimination of phospholipids.

Alumina TLC plates are aluminium oxide containing calcium sulfate hemihydrate as a binder. These TLC plates are recommended for terpenes, alkaloids, steroids, aliphatic and aromatic compounds. Activated plates at 120°C for 10min before use for improved separations.

Microcrystalline Cellulose TLC plates are coated with microcrystalline cellulose (Avicel®). The adsorbent consists of regenerated alpha cellulose particles of nearly spherical shape and 50µm particle size. Layer are binder free and abrasion resistant. Compounds separated on this cellulose tend to form more compact spots than on fibrous cellulose layers. Recommended for carboxylic acids, lower alcohols, urea and purine derivatives.

Specifications	
Adsorbent	Silica gel, 10µm, 60Å pore size with Gypsum, Calcium Sulfate Hemihydrate binder Alumina 10µm, 60Å pore size with Gypsum, Calcium Sulfate Hemihydrate binder Microcrystalline Cellulose
Indicator	Fluorescent at 254nm
Layer Thickness	500, 1000, 1500, 2000µm
Plate material	Glass
Plate size	20x20cm

Ordering Information		
Description	QTY	Part No.
VertiPlate™ Prep Soft-Layer Silica		
S-G, 500µm, 20x20cm	25	0820-0465
S-G, 1000µm, 20x20cm	25	0820-0565
S-G, 2000µm, 20x20cm	25	0820-0665
S-G, F254, 500µm, 20x20cm	25	0821-0465
S-G, F254, 1000µm, 20x20cm	25	0821-0565
S-G, F254, 2000µm, 20x20cm	25	0821-0665
VertiPlate™ Prep Binder Free Silica		
S, 500µm, 20x20cm	25	0810-0465
S, F254, 500µm, 20x20cm	25	0811-0465
VertiPlate™ Prep Reversed Phase		
S-C18-G, 500µm, 20x20cm	25	0870-0465
S-C18-G, 1000µm, 20x20cm	25	0870-0565
S-C18-G, F254, 500µm, 20x20cm	25	0871-0465
S-C18-G, F254, 1000µm, 20x20cm	25	0871-0565
VertiPlate™ Prep Silver Nitrate		
S-AGN03, 500µm, 20x20cm	25	0860-0465
S-AGN03, 1000µm, 20x20cm	25	0860-0565
S-AGN03, F254, 500µm, 20x20cm	25	0861-0465
S-AGN03, F254, 1000µm, 20x20cm	25	0861-0565
VertiPlate™ Prep Magnesium Acetate		
S-MGA, 500µm, 20x20cm	25	0880-0465
S-MGA, F254, 500µm, 20x20cm	25	0881-0465
VertiPlate™ Prep Alumina		
ALN-G, 500µm, 20x20cm	25	08E0-0465
ALN-G, 1000µm, 20x20cm	25	08E0-0565
ALN-G, F254, 500µm, 20x20cm	25	08E1-0465
ALN-G, F254, 1000µm, 20x20cm	25	08E1-0565
VertiPlate™ Prep Microcrystalline Cellulose		
MC, 500µm, 20x20cm	25	08F0-0465
MC, 1000µm, 20x20cm	25	08F0-0565
MC, F254, 500µm, 20x20cm	25	08F1-0465
MC, F254, 1000µm, 20x20cm	25	08F1-0565

G	Soft-layer, (Gypsum) Calcium Sulfate Hemihydrate binder
S	Binder Free Silica
C18	Octadecyl Bonded-silica gel
AGN03	Silver Nitrate
MGA	Magnesium Acetate
ALN	Alumina, neutral
MC	Microcrystalline Cellulose
F254	Fluorescent Indicator UV254