

ADAMANT ^G unmodified standard silica layers

★ Key features

- Outstanding hardness and abrasion resistance due to an optimized binder system
- Increased separation efficiency due to an optimized particle size distribution
- High suitability for trace analysis resulting from a UV indicator with increased brilliance and a lownoise background of the layer

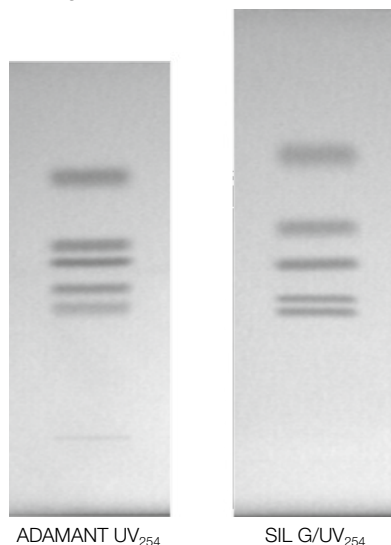
🔧 Technical characteristics

- Silica 60, mean pore size 60 Å, specific surface (BET) ~ 500 m²/g, specific pore volume 0.75 mL/g, particle size 5–17 µm

Separation of steroids

MN Appl. No. 402930

Layers: ADAMANT UV₂₅₄, SIL G/UV₂₅₄
 Sample: 0.1 % solution in CHCl₃
 Eluent: chloroform – methanol (97:3, v/v)
 Migration distance: ADAMANT 50 mm in 10 min, SIL G 57 mm in 10 min
 Detection: UV



Substance	R _f ADAMANT	R _f SIL G
Cortisone	0.37	0.27
Corticosterone	0.43	0.30
Testosterone	0.50	0.39
Deoxycorticosterone	0.55	0.46
Progesterone	0.73	0.62

Separation of barbiturates

MN Appl. No. 402950

Layer: ADAMANT UV₂₅₄
 Sample volume: 1 µL
 Eluent: chloroform – acetone (95:5, v/v)
 Migration distance: 70 mm in 20 min
 Detection: UV



Substance	R _f
Thiamylal (0.5 %)	0.69
Thiopental (1.0 %)	0.65
Hexobarbital (5.0 %)	0.41
Pentobarbital (1.0 %)	0.26
Phenobarbital (1.0 %)	0.18

Ordering information

Plate size [cm]	2.5 x 7.5	5 x 10	5 x 10	5 x 20	10 x 10	10 x 20	20 x 20	Thickness of layer	Fluorescent indicator
Pack of [plates]	100	50	200	100	25	50	25		

Glass plates

ADAMANT		821040	821040.200		821050		821060	0.25 mm	–	
ADAMANT UV ₂₅₄		821005	821010	821010.200	821015	821020	821025	821030	0.25 mm	UV ₂₅₄



ALUGRAM® Xtra SIL G Ax unmodified standard silica layers on aluminum

★ Key features

- Outstanding wettability for precise colorization results, even with 100 % aqueous detection reagents
- Excellent separation efficiency and reproducibility from lot to lot
- Easy and reliable cutting due to an optimized binder system, no flaking of silica

🔧 Technical characteristics

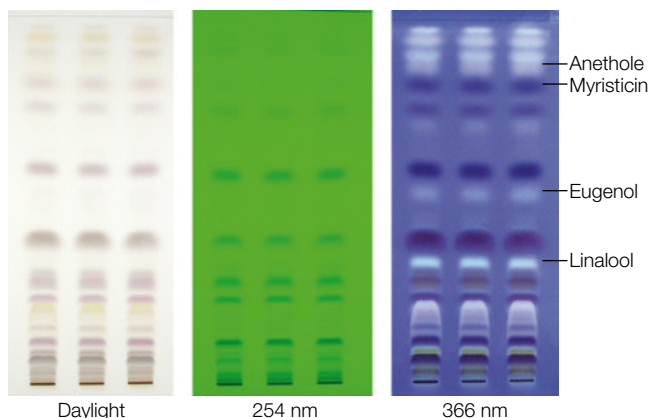
- Silica 60, mean pore size 60 Å, specific surface (BET) ~ 500 m²/g, specific pore volume 0.75 mL/g, particle size 5–17 µm
- Binder: highly polymeric product, which is stable in almost all organic solvents and resistant towards aggressive visualization reagents, also completely stable in purely aqueous eluents

Separation of nutmeg ingredients

MN Appl. No. 403590

Layer: ALUGRAM® Xtra SIL G UV₂₅₄
 Sample: shake 1.0 g freshly powdered drug for 3 min with 4 mL methanol and filter; apply 10 µL
 Eluent: toluene – ethyl acetate (95:5, v/v)
 Migration distance: 15 cm
 Detection: 254 nm: underivatized
 daylight and 366 nm: spray with 5 % ethanolic sulfuric acid, 1 % vanillic acid and heat to 105 °C

The chromatograms show the following zones with increasing R_f values: linalool (bluish grey), eugenol (yellowish brown), myristicin (reddish brown), and anethole (pink-violet). Other colored zones may appear.



Ordering information

Plate size [cm]	2.5 x 7.5	4 x 8	5 x 7.5	5 x 10	5 x 20	10 x 20	20 x 20	Thickness of layer	Fluorescent indicator
Pack of [plates]	200	50	20	50	50	20	25		

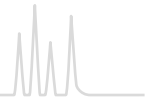
ALUGRAM® Xtra aluminum sheets

SIL G			818230.20	818261	818232		818233	0.20 mm	–
SIL G/UV ₂₅₄	818329	818331	818330.20	818360	818332	818362	818333	0.20 mm	UV ₂₅₄

Further application examples can be found online in our application database at www.mn-net.com/apps



Unmodified TLC silica layers



SIL G G P A unmodified standard silica layers

Technical characteristics

- Silica 60, mean pore size 60 Å, specific surface (BET) ~ 500 m²/g, specific pore volume 0.75 mL/g, particle size 5–17 µm
- Thickness of layer for analytical plates 0.25 mm, for preparative plates 0.5 and 1 mm; for 2 mm preparative layers a slightly coarser material is used
- Indicators: manganese activated zinc silicate with green fluorescence for short-wave UV (254 nm); special inorganic fluorescent pigment with blue fluorescence for long-wave UV (366 nm)
- Binders: highly polymeric products, which are stable in almost all organic solvents and resistant towards aggressive visualization reagents; binder system for POLYGRAM® sheets is also completely stable in purely aqueous eluents

Ordering information

Glass plates

Plate size [cm]	2.5 x 7.5	5 x 10	5 x 10	5 x 20	10 x 10	10 x 20	20 x 20	Thickness of layer
Pack of [plates]	100	50	200	100	25	50	25	
SIL G-25		809017	809017.200	809011		809012	809013	0.25 mm
SIL G-25 UV ₂₅₄	809028.100	809027	809027.200	809021	809020	809022	809023	0.25 mm
SIL G-25 UV ₂₅₄₊₃₆₆				809121		809122	809123	0.25 mm

Glass plates

Pack of [plates]	(preparative TLC)		20	
SIL G-50			809051	0.50 mm
SIL G-50 UV ₂₅₄			809053	0.50 mm

Glass plates

Pack of [plates]	(preparative TLC)		15	
SIL G-100			809061	1.00 mm
SIL G-100 UV ₂₅₄			809063	1.00 mm

Glass plates

Pack of [plates]	(preparative TLC)		12	
SIL G-200			809073	2.00 mm
SIL G-200 UV ₂₅₄			809083	2.00 mm

POLYGRAM® polyester sheets

Plate size [cm]	2.5 x 7.5	4 x 8		5 x 20		20 x 20	40 x 20	
Pack of [plates]	200	50		50		25	25	
SIL G	805902	805032		805012		805013	805014	0.20 mm
SIL G/UV ₂₅₄	805901	805021		805022		805023	805024	0.20 mm
SIL G/UV ₂₅₄					roll 500 x 20 cm	805017		0.20 mm

ALUGRAM® aluminum sheets

Plate size [cm]	2.5 x 7.5	4 x 8	5 x 7.5	5 x 10	5 x 20	10 x 20	20 x 20	
Pack of [plates]	200	50	20	50	50	20	25	
SIL G			818030.20	818161	818032	818163	818033	0.20 mm
SIL G/UV ₂₅₄	818129	818131	818130.20	818160	818132	818162	818133	0.20 mm

Further application examples can be found online in our application database at www.mn-net.com/apps



Unmodified TLC silica layers



DURASIL ^G unmodified standard silica layers

🔧 Technical characteristics

- Silica 60, mean pore size 60 Å, specific surface (BET) ~ 500 m²/g, specific pore volume 0.75 mL/g, particle size 5–17 µm
- Hard, water-resistant and wettable layers due to a special binder system

Ordering information

Plate size [cm]	5 x 10	5 x 10	5 x 20	10 x 20	20 x 20	Thickness of layer	Fluorescent indicator
Pack of [plates]	50	200	100	50	25		

Glass plates

DURASIL-25				812003	812004	0.25 mm	–
DURASIL-25 UV ₂₅₄	812005	812005.200	812006	812007	812008	0.25 mm	UV ₂₅₄



The most TLC layers are available as glass plate, polyester- or aluminum sheet (also see page 272 and 273).