

Chromatography

TLC

Thin Layer Chromatography

Plates & Sheets



**Order your
free samples
today!**

**Quality
Efficiency
Selectivity**

MACHERY-NAGEL

www.mn-net.com



Since 1911



Advantages of sheets:

- easy to cut / handle
- more economical than glass plates
- excellent separation efficiency

Analytical TLC polyester and aluminium sheets:

Silica 60, specific surface (BET) ~ 500 m²/g, mean pore size 60 Å, specific pore volume 0.75 mL/g, particle size 5–17 µm, thickness of layer 0.20 mm

POLYGRAM®

ALUGRAM®

size (cm)	pack of	REF with UV 254 nm	REF without UV indicator	REF with UV 254 nm	REF without UV indicator
2.5 x 7.5	200	805901	805902	818129	
4 x 8	50	805021	805032	818131	
5 x 7.5	20			818130.20	818030.20
5 x 10	100 50	805037	805039	818160	818161
5 x 20	50	805022	805012	818132	818032
10 x 20	50 20	805028	805034	818162	818163
20 x 20	25	805023	805013	818133	818033
40 x 20	25	805024	805014		
Roll 500 x 20	1	805017			

Polyester sheets POLYGRAM®

Key features:

- unbreakable but easy to cut
- chemical resistant (against acids and bases)
- returns to planarity after bending
- transparent
- low in weight and price
- temperature stable up to 185 °C

Aluminium sheets ALUGRAM®

Key features:

- unbreakable but easy to cut
- chemical resistant
- suitable for most solvents
- low in weight and price
- heat resistant

TLC accessory



Description	REF
Simultaneous developing Chamber for TLC	
20 x 20 cm, for up to 5 plates	814019
10 x 10 cm, for up to 2 plates	814018
MN Alugram® scissors	818666



Thin layer chromatography is used for a wide range of applications. However, there is no universal plate, which meets all possible demands. For this reason MN offers different types of silica coated glass plates: SIL-G or ADAMANT with different selectivities and fields of use.

Key features of analytical TLC glass plates:

- chemical resistance
- ability to scan (absolute planarity)
- preparative TLC possible
- transparent
- . . . but more fragile, difficult to cut and higher weight than sheets

Analytical TLC glass plates:

Silica 60, specific surface (BET) ~ 500 m²/g, mean pore size 60 Å, specific pore volume 0.75 mL/g, particle size 5–17 µm, thickness of layer 0.25 mm

SIL-G*

smooth surface · easy to „scrape off“ · low polarity binder

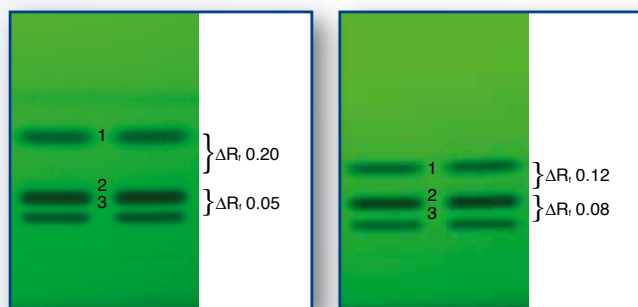
ADAMANT

hard surface · can be pen labeled
brilliant UV indicator system

size (cm)	pack of	REF with UV 254 nm	REF with UV 254/366 nm	REF without UV indicator	REF with UV 254 nm	REF without UV indicator
2.5 x 7.5	100	809028.100			821005	
5 x 10	200	809027.200			821010.200	
	50	809027		809017	821010	821040
5 x 20	100	809021	809121	809011	821015	
10 x 10	25	809020		809010	821020	821050
10 x 20	50	809022	809122	809012	821025	821070
20 x 20	25	809023	809123	809013	821030	821060

*Also available as preparative plates in 0.50, 1.00 and 2.00 mm thickness.

2 different selectivities for the separation of nitroanilines, separations under identical conditions



Sil-G

ADAMANT

Brilliant UV indicator on ADAMANT plates



size (cm)	pack of	Glass plates	
		REF RP-18 W / UV ₂₅₄ 0.25 mm	ALUGRAM® REF RP-18 W / UV ₂₅₄ 0.15 mm
4 x 8	50		818144
5 x 10	50		818152
5 x 20	50	811073	818145
10 x 10	25	811075	818147
10 x 20	50	811072	
20 x 20	25	811071	818146

C18 TLC and HPTLC plates

For reversed phase TLC we offer different plates with C18 modified silica. The wettable TLC RP18W can be developed with purely organic and organic/aqueous solvents as well as with purely aqueous eluents.

Further modifications with different degrees of silanisation (NanoSIL-C18-50) are also available.

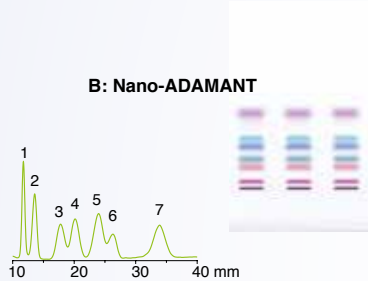
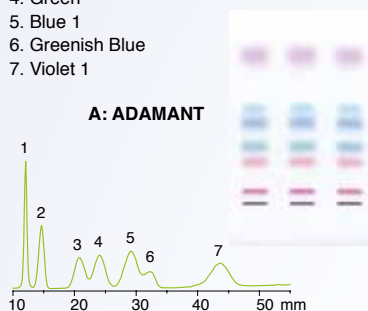


Comparison of ADAMANT and Nano-ADAMANT plates

Separation of anthraquinone dyes

Layers: A: ADAMANT,
B: Nano-ADAMANT
Sample: 1 µL about 0.1 %
Eluent: toluene-cyclohexane (4:3, v/v)
Migration time: A) 30 min, B) 15 min

Peaks:
1. Blue 3
2. Violet 2
3. Red
4. Green
5. Blue 1
6. Greenish Blue
7. Violet 1



Higher efficiency on smaller particles . . .

in addition to TLC ready-to-use layers with standard silica coating we manufacture high performance ready-to-use layers (**HPTLC**) under the name “**Nano silica**”. The adsorbent, as in HPLC, is narrowly fractionated. We use mean particle sizes of 2–10 µm.

Key features of HPTLC plates:

- sharper separations
- shorter developing times and migration distances
- smaller sample volumes 0.01–0.1 µL
- minimal diffusion
- increased detection sensitivity

Analytical HPTLC glass plates:

Silica 60, specific surface (BET) ~ 500 m²/g, mean pore size 60 Å, specific pore volume 0.75 mL/g, thickness of layer 0.20 mm

size (cm)	pack of	Nano-SIL-G		Nano-ADAMANT	
		REF with UV 254 nm	REF without UV indicator	REF with UV 254 nm	REF without UV indicator
5 x 5	100	811021	811011	821100	821130
10 x 10	25	811022	811012	821110	821140
10 x 20	50	811023	811013	821120	821150

Further TLC-products from MACHEREY-NAGEL:

- plates with concentrating zone
- preparative TLC plates (0.50, 1.00 and 2.00 mm thickness)
- plates and sheets with aluminium oxide or polyamide
- plates and sheets with cellulose, **MN 300** (native fibrous)
MN 400 (microcrystalline cellulose plates), modified cellulose with ion exchanger
- modified layers (CN, NH₂, Diol)
- further RP layers
(Nano-SIL C18-50, Nano-SIL C18-100, RP-2)
- CHIRALPLATE for enantiomeric separations
- layers for special applications (PAH, tensides)
- ion exchangers
- mixed layers
(aluminium oxide/cellulose, cellulose/silica, kieselguhr/silica)
- visualisation reagents and accessories

For further information please feel free to order our general chromatography catalogue or contact your local distributor for free samples.

www.mn-net.com

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