



INSTRUCTIONS FOR USE - ENGLISH

CAMEO®DISK PLATINIUM

GRINDING DISCS

Diamond discs (fixed abrasive)
for rapid grinding of metallographic samples

1. Description of the CAMEO®DISK PLATINIUM

The CAMEO®DISK PLATINIUM is a pre-polishing disk with a very high material removal power allowing the efficient replacement of all pre-polishing steps that are usually carried out with abrasive papers.

The honeycomb structure of the CAMEO®DISK PLATINIUM optimizes the action of the abrasive diamond of which it is composed by improving the lubrication and retains an optimal flatness on all types of samples.

The CAMEO®DISK PLATINIUM is particularly recommended for the rapid pre-polishing of materials with a hardness ≥ 120 HV.

4 versions are available:

CAMEO®DISK PLATINIUM 0 - Brown replaces by its strong stock removal power on hard materials abrasive paper Sic # 80 to # 100.

CAMEO®DISK PLATINIUM 1 - Blue replaces all the steps of pre-polishing usually carried out with abrasive paper Sic # 120 to # 180.

CAMEO®DISK PLATINIUM 2 - Green replaces by its material removal and quality of finishing the pre-polishing steps with abrasive paper Sic # 220 to # 320.

CAMEO®DISK PLATINIUM 3 - Yellow replaces the steps of finishing usually carried out with abrasive paper Sic # 600 (mainly on hard materials).

CAMEO®DISK PLATINIUM 4 - Red replaces the steps of finishing usually carried out with abrasive paper Sic # 1200.

The CAMEO®DISK PLATINIUM is available with two modes of fixation:

- **Self-adhesive**, it has been designed to be used with the LAM PLAN FAS® system which facilitates its positioning and removal.
- **Magnetic**, used with the LAM PLAN magnetic supporting plates.

The CAMEO®DISK PLATINIUM is available in several standard sizes:

CAMEO®DISK	SELF ADHESIVE version references			
	Ø 200 mm	Ø 230 mm	Ø 250 mm	Ø 300 mm
PLATINIUM 0	09CA17020	09CA17030	09CA17040	09CA17050
PLATINIUM 1	09CA14020	09CA14030	09CA14040	09CA14050
PLATINIUM 2	09CA15020	09CA15030	09CA15040	09CA15050
PLATINIUM 3	09CA16020	09CA16030	09CA16040	09CA16050
PLATINIUM 4	09CA18020	09CA18030	09CA18040	09CA18050

CAMEO®DISK	MAGNETIC version references			
	Ø 200 mm	Ø 230 mm	Ø 250 mm	Ø 300 mm
PLATINIUM 0	09CA57020	09CA57030	09CA57040	09CA57050
PLATINIUM 1	09CA54020	09CA54030	09CA54040	09CA54050
PLATINIUM 2	09CA55020	09CA55030	09CA55040	09CA55050
PLATINIUM 3	09CA56020	09CA56030	09CA56040	09CA56050
PLATINIUM 4	09CA58020	09CA58030	09CA58040	09CA58050

2. Installation of the CAMEO®DISK PLATINIUM

Safe use - Self-adhesive CAMEO®DISK PLATINIUM

The little thickness of the CAMEO®DISK PLATINIUM makes it supple but it remains fragile. It has to be handled with great care.

Safe use - Magnetic CAMEO®DISK PLATINIUM

Do not put your hands on the outside diameter of the disk when it is rotating.

Avoid bending the steel sheet of the magnetic CAMEO®DISK PLATINIUM.

Do not stick any label on its metallic back face.

Keeping in place - Self-adhesive CAMEO®DISK PLATINIUM

Remove the protection of the adhesive at the back of the CAMEO®DISK PLATINIUM.

Center and apply the CAMEO®DISK PLATINIUM onto the LAM PLAN FAS® that has been previously cleaned and dried. To remove the CAMEO®DISK PLATINIUM, lift up an edge and remove the disk carefully.

Keeping in place - Magnetic CAMEO®DISK PLATINIUM

Center and place the CAMEO®DISK PLATINIUM onto the LAM PLAN magnetic plate.

Make sure that the faces in contact with the CAMEO®DISK PLATINIUM and the magnetic plate are clean and dry.

Lift up the CAMEO®DISK to remove it. Do not bend the steel sheet, it could make the CAMEO®DISK unusable.

3. Use of the CAMEO®DISK PLATINIUM

CAMEO®DISK PLATINIUM is recommended for the rapid flattening of semi-hard up to extra-hard samples before fine pre-polishing samples on CAMEO®DISK SILVER or GOLD.

Choice:

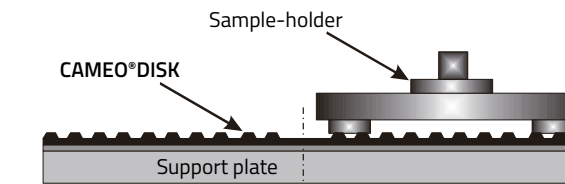
CAMEO®DISK PLATINIUM 0 and 1 will be used for their high material removal capacity on rather hard materials and for the preparation of large samples.

CAMEO®DISK PLATINIUM 2, 3 and 4 will guarantee a better finish on smaller hard samples and on softer ferrous or non ferrous samples.

Our technical department can communicate pre-established polishing ranges on request.

Positioning of a sample-holder

To ensure an excellent flatness of the samples and a regular wear of the CAMEO®DISK PLATINIUM, position the sample-holder in such a way that the samples protrude with some millimeters the inside and outside diameter of the active part of the CAMEO®DISK PLATINIUM.



Lubricant

Water is the main lubricant used for this pre-polishing step, but it can be replaced by a fluid that will not generate corrosion when treating a sensitive material.

Pressure

The average pressure to apply on a sample is $P = 250 \text{ gr/cm}^2$ for a material with a hardness $> 200 \text{ HV}$. This pressure is expressed in mass (M) to apply on the sample.

This pressure must be reduced, $\leq 150 \text{ gr/cm}^2$, on softer materials ($< 120 \text{ HV}$) or brittle, and increased, $\leq 350 \text{ gr/cm}^2$ on very hard materials ($> 500 \text{ HV}$). The increase of the pressure noticeably improves the output of the CAMEO®DISK PLATINIUM but requires a more frequent facing.

Ø sample	Ø 20 mm	Ø 30 mm	Ø 40 mm	Ø 50 mm
M = P x (sample surface)	8 N	18 N	30 N	50 N

Speed

The recommended rotation speed for the CAMEO®DISK is 150 rpm. The increase of the speed improves the output of the CAMEO®DISK PLATINIUM but also requires a more frequent facing.

4. Maintenance of the CAMEO®DISK PLATINIUM

Facing

The CAMEO®DISK PLATINIUM is supplied with a protector film on its surface. Operate a facing of the disk with the supplied abrasive stone before using it for the first time. To maintain the material removal, face the CAMEO®DISK PLATINIUM regularly. The interval between each facing depends on the material, on the number and on the size of the samples which are being treated.

The following table gives some indications on the facing period.

Material	Sample	Qty of samples	Facing period
Steel = 300 HV + resine	coated Ø 32 mm	6	40 minutes
Steel = 300 HV	non-coated Ø 32 mm	6	15 minutes

If the hardness of the materials or the size of the samples is more important, the interval between each facing must be reduced. On the contrary, if the hardness of the materials or the size of the samples is less important, the interval will be prolonged.

To face the CAMEO®DISK PLATINIUM:

- Place the disk onto its magnetic support or onto the LAM PLAN FAS® system.
- Open widely the water supply for lubrication.
- Drive the disk with 150 rpm.
- Bring the abrasive stone into contact with the center of the disk and bring it slowly toward the outside while applying a high pressure.

Cleaning

In order to preserve the qualities of the CAMEO®DISK PLATINIUM it is recommended to clean the active face after each use under water with a brush and to let dry with compressed air. In case the CAMEO®DISK PLATINIUM is systematically removed from its support between each use, the LAM PLAN magnetic plate or the LAM PLAN FAS® disk on which the CAMEO®DISK PLATINIUM was positioned must also be cleaned carefully with a soft cloth. MIND: Avoid to wet the back face of the self-adhesive CAMEO®DISK PLATINIUM, it might lose its adhesive qualities.

Storage

Between each use, keep the CAMEO®DISK PLATINIUM in the storage box BOXLAM®. It will be protected against any outside pollution.

Replacement

Replace the CAMEO®DISK PLATINIUM when normal wear has been reached, i.e. when the honeycomb has completely disappeared (more rapidly at the center).

It can happen that a self-adhesive CAMEO®DISK PLATINIUM gets fractured during a faulty handling. A very resistant coating on the back face of the CAMEO®DISK prevents it from falling into pieces and maintains its efficiency. However, if the CAMEO®DISK PLATINIUM is too much fractured, its use becomes difficult and it needs to be replaced.

Likewise, the deterioration (bending or shocks) of the metallic back face of a magnetic CAMEO®DISK PLATINIUM requires its replacement.