



INSTRUCTIONS FOR USE - ENGLISH

CAMEO®DISK SILVER and GOLD

PRE-POLISHING DISCS

Non diamond discs (free abrasive)
for rapid pre-polishing
of metallographic samples

1. Description of the CAMEO®DISK

The CAMEO®DISK is a patented fine pre-polishing disk with high material removal power allowing a time-saving replacement of all pre-polishing steps that are usually carried out with SiC abrasive papers # 400 to # 1200. The CAMEO®DISK can also be directly used after mounting multiple samples in the patented LAM PLAN conical sample-holders. The patented honeycomb structure of the CAMEO®DISK enhances the action of the periodically sprayed diamond liquid and retains an optimal flatness on all types of samples. An excellent finish and flatness quality obtained with CAMEO®DISK guarantees a rapid polishing of the samples on a TOUCHLAM® polishing cloth (or equivalent) with the corresponding diamond liquid.

Advantage

The tanks formed by the honeycomb structure held the diamond liquid on the disk during rotation, thereby greatly limiting consumption.

The CAMEO®DISK is available in two variants:

- CAMEO®DISK SILVER: effective on medium-hard, hard and extra-hard materials (>200HV).
- CAMEO®DISK GOLD: adapted for softer and non-ferrous materials.

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

- Self-adhesive: used with the LAM PLAN FAS® system which facilitates its placing and removal.
- Magnetic: used with the LAM PLAN magnetic supporting plates.

The CAMEO®DISK is available in several standard sizes:

CAMEO®DISK	References SELF-ADHESIVE version			
	Ø 200 mm	Ø 230 mm	Ø 250 mm	Ø 300 mm
SILVER	09CA12020	09CA12030	09CA12040	09CA12050
GOLD	09CA13020	09CA13030	09CA13040	09CA13050

CAMEO®DISK	References MAGNETIC version			
	Ø 200 mm	Ø 230 mm	Ø 250 mm	Ø 300 mm
SILVER	09CA52020	09CA52030	09CA52040	09CA52050
GOLD	09CA53020	09CA53030	09CA53040	09CA53050

2. Installation of the CAMEO®DISK

Fixation

Self-adhesive CAMEO®DISK

Peel off the protection of the adhesive on the back of the CAMEO®DISK. Center and place the CAMEO®DISK onto the

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

Magnetic CAMEO®DISK

Center and place the CAMEO®DISK onto the LAM PLAN magnetic plate. Make sure that both faces in contact (CAMEO®DISK and magnetic plate) are clean and dry.

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

Caution

Self-adhesive CAMEO®DISK

The small thickness of the CAMEO®DISK makes it flexible but also fragile. It has to be handled with great care.

Magnetic CAMEO®DISK

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

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

Do not stick any label on its metallic back.

Do not exceed 600 rpm.

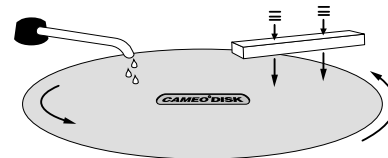
3. Putting the CAMEO®DISK in operation

IMPERATIVE BEFORE FIRST USE

It is imperative to dress the disk with the diamond tool provided before the first use.

Apply a strong pressure on the diamond tool and move it from the interior towards the outer edge of the disk until complete removal of the protection coating.

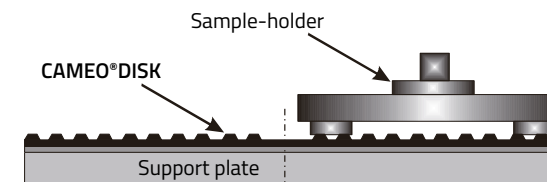
It is recommended to dress the disk with water lubrication at a rotational speed of 150 rpm.



4. Usage of the CAMEO®DISK

Positioning the sample-holder

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



Abrasive

The CAMEO®DISK is to be used with diamond liquid. The particle size of the diamond abrasives recommended on the CAMEO®DISK SILVER can vary from 6µ to 15µ and from 3µ to 6µ on the CAMEO®DISK GOLD depending on the materials being processed. The diamond liquid must be dosed at regular intervals.

Our technical department can provide pre-established polishing methods on request.

Pressure

On an average, for samples of hardness > 200 HV a pressure of 250 g/cm² is recommended. This pressure can be translated into force (N) by multiplying it with the area of the sample:

The pressure must be reduced to ≤ 150 g/cm² on softer materials (<200HV) and increased to ≤ 350 g/cm² on very hard materials (>500HV).

Speed

The recommended rotational speed for the CAMEO®DISK is 150 rpm.

5. Maintenance of the CAMEO®DISK

Cleaning

In order to preserve the qualities of the CAMEO®DISK it is recommended to clean the active face after each use under water with a brush and to dry it with compressed air. When the CAMEO®DISK is systematically removed from its support after each use, the LAM PLAN magnetic plate or the LAM PLAN FAS® disk on which the CAMEO®DISK was positioned must also be cleaned carefully with a soft cloth.

In case of contamination of the CAMEO®DISK, its original efficiency can be restored by using the diamond tool provided with the CAMEO®DISK following the same process as described in § 3 "Putting in operation".

CAUTION: Avoid wetting the back face of the self-adhesive CAMEO®DISK, it could lose its adhesive qualities.

Storage

Between each use, keep the CAMEO®DISK in the BOXLAM® storage case to protect it from any contamination.

Flatness

The kinematics of a polishing machine equipped with an au-

tomatic head causes a preferential wear at the center of the CAMEO®DISK and consequently a progressive loss of flatness.

However, the flatness can be corrected by inverting the direction of rotation of the motorized head on automatic polishing machines.

Replacement

Replace the CAMEO®DISK when the honeycomb structure has disappeared.

A self-adhesive CAMEO®DISK could be fractured from a faulty handling. Nevertheless a tough coating on the back face of the CAMEO®DISK will prevent the active surface from falling into pieces and maintain its efficiency. However, if the CAMEO®DISK is severely damaged, its use becomes difficult and it will have to be replaced.

Likewise, the deterioration of the metallic back of a magnetic CAMEO®DISK from repeated bending or shocks necessitates replacement.