

Instructions for use

LUCIO

1. Characteristics

- 1.1. LUCIO is a solid compound polishing stick made with 100 % diamond abrasive. It consists exclusively of synthetic materials. Due to the absence of organic components or hazardous substances, it is also suitable for medical application.
- 1.2. LUCIO is manufactured with an even distribution of diamond particles throughout the stick. In addition, it is designed to last and will not degrade, oxidize, or dry up over time if stored correctly at room temperature (under 40° C).
- 1.3. The diamond particles' mechanical function is to cut and to polish. This makes LUCIO perfectly suited for use on ductile, hard, or very hard materials.
- 1.4. The regular, blocky shape of the diamond particles ensures precise control. Processes with repeatable results can be implemented.
- 1.5. Three available levels of diamond concentration from standard to high combined with five available grit sizes allow for a fine calibration of the compound to the intended application:

Power level	Diamond concentration	Available grit sizes
Power 8	High = 108	6 µm, 3 µm, 1 µm, 0.5 µm, 0.25 µm
Power 5	Medium = 105	6 µm, 3 µm, 1 µm, 0.5 µm, 0.25 µm
Power 2	Standard = 102	6 µm, 3 µm, 1 µm, 0.5 µm, 0.25 µm

LUCIO sticks are highly versatile and suitable for operations from buffing to finishing.

- 1.6. The product code contains information on power level, grit size, and weight of the stick as demonstrated in the following example:

LUCIO 105-203-040

power = 5

grit size in micron = 3 µm

stick weight in grams = 40 g

2. Use

- 2.1. Apply the LUCIO diamond stick compound to a new wheel or brush.
- 2.2. Diamond polishing is executed in steps. Each step will result in a surface covered with micro-scratches. The depth of these scratches will never exceed the stick's grit size. The occurrence of deeper scratches indicates pre-process damage.

- 2.3.** Apply as little diamond compound / paste as possible onto a cotton polishing pad, an abrasive wheel or a woolen felt. Using too much paste will have the opposite of the desired effect, resulting in visible dullness on the surface of the workpiece. It is advisable to apply the compound to the fabric lightly, as too much pressure is counterproductive.
- 2.4.** Apply the compound to a cotton brush in three back and forth movements of one second each – this will take three seconds in total. The combing required to sharpen the cotton wheel should take two seconds.
- 2.5.** To increase the level of material removal, increase the diamond concentration of the stick (Power level), and/or the diamond grit size.
- 2.6.** The larger the diamond grit size, the more effective the material removal and the larger the micro-scratches. Conversely, the smaller the diamond grit size, the finer the polishing result and the less visible the micro-scratches. Thus, the micro-scratches visible in the beginning will disappear with each treatment step of finer grit sizes.
- 2.7.** The amount of time your workpiece passes over your wheel or brush must be kept short, otherwise you risk causing an orange peel effect. Thanks to the extreme abrasiveness of the diamond particles contained in LUCIO, you can achieve a perfect surface in an exceptionally short amount of time. The closer the process is to fine polishing / finishing, the less working time is required.
- 2.8.** The compound LUCIO is made of was designed to be water-soluble and, hence, easy and quick to clean. Washing your workpiece with hot water (about 40° C) will suffice. Chemical baths are not required.
- 2.9.** The following rotation speed settings are recommended for abrasive wheels, felt or cotton pads:

Application	Brush hardness	Rotation speed in rpm*
Buffing	Firm	2 000 to 3 000
Polishing	Medium	1 500 to 1 800
Finishing	Soft (parachute cloth)	800 to 1 200

*rpm = rotations per minute

For additional information, please do not hesitate to contact us:

Pureon AG
 Kreuzlingerstrasse 1
 CH-8574 Lengwil
 +41 71 686 60 62
 www.pureon.com