

# GELATIN LIFTERS FOR CRIMINAL INVESTIGATIONS

## Material description

Lifters for use in criminal investigations are designed for lifting prints (fingerprints, shoeprints etc.) and traces from various objects in criminal investigation practice.

The product consists of the following basic parts:

- base pad
- gelatine layer
- cover foil

Depending on the type of base pad used, on which the sensitive gelatine layer is applied, the following versions are manufactured:

## 1. LIFTERS ON PAPER OR POLYESTER BASE

### a) Transparent – type P

The base pad used is a clear polyester pad 0.10±0.02 mm thick with a basis weight of 140-160 g/m<sup>2</sup>.

The lifter has a 0.5-0.6 mm thick transparent gelatine layer with a basis weight of 600±160 g/m<sup>2</sup>. It is designed for capturing traces exposed on slightly to medium uneven surfaces.

### b) Black – types OC, 2OC, 3OC, 2OC2

They have a 0.5-0.6 mm thick black coloured gelatine layer with a basis weight of 600±160 g/m<sup>2</sup>.

They are designed for capturing traces exposed by fingerprint powders of a light colour on slightly to medium uneven surfaces and suitable for scanning.

The different types are distinguished by the paper base pad used and the sheet weight as per the table below.

Special type 2OC 2 has a thicker black gelatine layer of 0.6-0.8 mm. Suitable for trace evidence.

### c) White – types OB, 2OB, 3OB, 2OB2

They have a 0.5-0.6 mm thick transparent gelatine layer with a basis weight of 600±160 g/m<sup>2</sup>.

They are used for capturing traces exposed by dark fingerprint powders on slightly to medium uneven surfaces.

The different types are distinguished by the base pad used and the sheet weight as per the table below.

| Types      | Base pad basis weight [g/m <sup>2</sup> ] | Base pad type                  | Base pad thickness [mm] | Weight of format 13x18 cm [g] |
|------------|---|--------------------------------|-------------------------|-------------------------------|
| P          | 150±10                                    | Polyester                      | 0.100                   | 16.0-24.0                     |
| OC, OB     | 110±8                                     | Paper, laminated on both sides | 0.110                   | 15.5-24.0                     |
| 2OC, 2OB   | 226±8                                     | Paper, laminated on both sides | 0.220                   | 18.0-26.0                     |
| 3OC, 3OB   | 160±10                                    | Paper, smooth baryte           | 0.160                   | 19.0-27.0                     |
| 2OC2, 2OB2 | 226±8                                     | Paper, laminated on both sides | 0.220                   | 32.0-40.0                     |

All lifter types have a 0.10±0.01 mm thick transparent polyester foil with a basis weight of 100-120 g/m<sup>2</sup> as the cover foil.

The OC, 2OC, OB, 2OB types have a layer of polyethylene laminated at the back to prevent material drying or moistening.

## 2. LIFTERS ON RUBBER BASE PADS

### a) Black – type 6OC2

They have a 0.6-0.8 mm thick black coloured gelatine layer on a rubber base pad 0.6 mm thick. They are suitable for scanning.

### b) White – type 6OB2

They have a 0.6-0.8 mm thick white coloured gelatine layer on a rubber base pad 0.6 mm thick. They are suitable for capturing traces using dark fingerprint powders.

| Types | Base pad basis weight [g/m <sup>2</sup> ] | Base pad type                    | Base pad thickness [mm] | Weight of format 13x18 cm [g] |
|-------|---|----------------------------------|-------------------------|-------------------------------|
| 6OC2  | 840±30                                    | Fabric with rubber on both sides | 0.600                   | 36.0-44.0                     |
| 6OB2  | 840±30                                    | Fabric with rubber on both sides | 0.600                   | 36.0-44.0                     |

All types have a 0.10±0.01 mm thick transparent polyester foil with a basis weight of 100-120 g/m<sup>2</sup> as the cover foil.

## 3. FINGERPRINT BOOK

The set consists of a transparent lifter with a gelatine layer 0.5-0.6 mm, to which a paper base pad is attached with a basis weight of 250-280 g/m<sup>2</sup> and 0.25-0.35 mm thickness. After the cover foil has been removed, the trace recorded on the lifter adheres to the attached paper base pad. Thus, the trace is archived as a mirror image.

a) Fingerprint book, white. A white paper base pad is attached to transparent lifter.

b) Fingerprint book, black. A black paper base pad is attached to transparent lifter.

All the types have a 0.08±0.01 mm thick transparent polyester foil with a basis weight of 100-120 g/m<sup>2</sup> as the cover foil.

## Packaging

All the lifters types for criminal investigations are cut into sheets of 13x18, 18x36 and 13x36 cm.

Other sizes can be manufactured by arrangement with the manufacturer.

The sheets are interleaved with a special paper that prevents mechanical damage to the lifter surface.

Lifters in the formats 13x18 and 13x36 cm are packaged in moisture-resistant envelopes containing 10 sheets; the bulk pack contains 10 envelopes, totaling 100 sheet items. Formats 18x36 and 13x36 cm are packaged in envelopes containing also 2 sheets.

The fingerprint books are manufactured in the format 13x36 cm and packed with 10 items; the bulk pack contains 33 packs, totaling 330 fingerprint book items.

#### **Storage and transport**

Lifters must only be stored in their original packaging (no more than 3 bulk packages on top of each other), in a dry place at a temperature of 10-30°C and a relative humidity of 40-60 %. Observing the prescribed temperature and humidity is essential to preserve the performance of the working layer.

*The product must be shipped in covered vehicles and kept in their original packaging, protected against high temperatures, freezing, high humidity and mechanical damage during their transport and storage.*

#### **Warranty period**

36 months if the storage conditions are observed.

#### **Identification**

For the purposes of fingerprint and trace evidence criminal investigation laboratories accredited under ČSN EN ISO/IEC 17025:2005 and analogous standards worldwide, as of 1 January 2007, the manufacturer implements identification on the rear side of each product sheet with the following information:

– product type, emulsion number, month and year of manufacture, month and year of expiry.

The marking complies with the requirements which must be adhered to by an accredited laboratory in order to demonstrate its competence to provide technically valid results.

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The product has been produced and marketed under a quality system conforming to international standard ČSN EN ISO 9001.