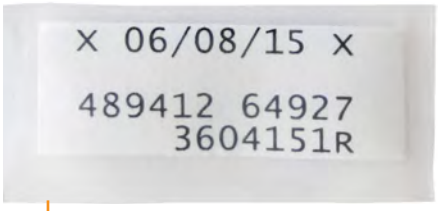
# TLD CHIP

## Single point radiation assessments

The TLD chip is an easy-to-use product, ideal for environmental measurements and studies. LANDAUER® offers a simple way to make your dose assessments without requiring equipment.




TLD chip
Front view with identification label

TLD chip
Back view

## A DOSIMETER FOR HARDLY ACCESSIBLE PLACES

### Single point measurement

The detector can be placed accurately anywhere, especially in hardly accessible places.

It can be fixed on a surface (skin, phantom, ...) with some adhesive tape.

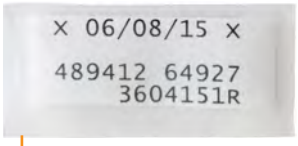
### Hygienic

The dosimeter is delivered in a plastic pouch that protects against contamination and all material damage.

It can be cold sterilized using any type of sterilization product that does not attack the plastic.

### OSL single point radiation assessments

For single point radiation assessment coupled with instant on-site reading, we recommend the use of nanoDots (OSL dots) with portable reader, microStar.




Sealed identification label in the pouch

## TECHNICAL PERFORMANCE

| Type of measured radiation | Measurement range | Minimum value | Maximum value |
|---|---|---|---|
| Photons | From 15 keV to 1.25 MeV | 0.30 mSv | 10 Sv |
| Beta | From 250 keV to 3 MeV | 0.30 mSv | 10 Sv |

TLD chip
in its plastic pouch

## MEASUREMENT METHOD

The TLD chip is a radiolucent dosimeter.The detector is based on the TLD technology (Thermoluminescent Dosimeter) just like the SATURN® and VISION® dosimeters.

It's composed with a low thickness lithium fluoride, LiF dot.

The principle of the TLD stands on the heating of the sensor. This operation results in the emission of a visible luminescence proportional to the exposure to ionising radiation.

TLD Chip used for
extremity dose measurement

## HOW TO USE IT ?

Each detector is identified by a serial number printed on a label. This one is inserted with the TLD inside of the plastic pouch.

A monitoring form should be completed for each chip returned. It aims to identify and to track each chip.

This form is also used after analysis as control report. The results are supplied to you within three weeks from the date of the reception of the dosimeters on electronic format. They are expressed in «personal dose equivalent» $H_p(0.07)$ and as the consequence of gamma radiation exposure.

Analysis of the chip will be made by LANDAUER with an automatic reader.

## GENERAL CHARACTERISTICS

| | |
|---|---|
| **Measured radiation types** | X-rays, beta and gamma |
| **Detector** | TLD (Thermoluminescent Dosimeter) |
| **Material** | Chip of lithium fluoride (LiF) |
| **Dimensions** | Chip: 3 mm x 3 mm<br>Thickness: < 1 mm<br>Package: about 40 mm x 20 mm |