

# Genesis Ultra TLD

Enhanced performance and user factors.



### **OVERVIEW**

The Genesis Ultra TLD from Mirion Technologies Dosimetry Services Division (DSD) responds accurately to beta, gamma, X-ray, and neutron radiation. The response of each element is corrected by the application of its own unique element correction factors and allows for the reporting of deep, lens of eye and shallow doses.

Unlike other TLD products, the Genesis Ultra TLD has virtually no fading characteristics. Due to the increase in signal response a minimum reportable dose (MRD) as low as 1 mrem (0.01 mSv) is available, compared to the 10 mrem (0.10 mSv) MRD of other TLD products.

## **APPLICATIONS**

- Any occupational worker with potential exposure to gamma, X-ray, beta and/or neutron radiation.
- Nuclear medicine facilities, imaging centers, research diagnostic centers and all employees with potential exposure to gamma, X-ray and beta.
- Nuclear power plant workers, research laboratories, hospitals, universities and industrial applications.



**Dosimetry Services** 

#### **FEATURES**

#### **Genesis Ultra TLD**

- Virtually no fade
- MRD of 1 mrem (0.01 mSv) available upon request
- Wear periods from one week to one year
- Unique serial number for identification and tracking
- Whole-body, wrist and area monitoring configurations
- Provides thermal, intermediate and fast neutron dosimetry capability
- Improved label with larger fonts and wear locations
- Enhanced ergonomics

Technical Specifications	Genesis Ultra TLD Dosimeter
Description	4 element TLD (3 <sup>7</sup> LiF:Mg, Cu, P [TLD700H] and 1 <sup>6</sup> LiF:Mg, Cu, P [TLD600H])
Badge Type	36= Genesis Ultra TLDMCP 35= Genesis Ultra TLDMCP with CR39
Holder Type	DA, DB, DL, DW
Accreditations/Approvals/Licenses	NVLAP (Code: 100555-0) HSE (United Kingdom) DoELAP***
Minimum Reportable Dose	1 mrem (0.01 mSv)
Useful Dose Range	1 mrem - 1000 rad (0.01 mSv - 10 Gy)
Energy Response	Beta0.251 MeV - 5 MeVPhoton5 keV - 6 MeVNeutron (TLD):Thermal - 6 MeVNeutron (CR39):200 keV - 6 MeV **

\*\*Neutron energies up to 20 MeV with CR39 and special calibration.

\*\*\*DoELAP accreditation only applies to the Genesis Ultra with CR39

#### > Dosimetry Services Division

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