MIRION TECHNOLOGIES

HIGH DOSE DOSIMETER FEATURES

- Unique bar-code identification number insures accurate custody chain
- Comprehensive and reliable dosimetry service ensures employee safety
- Convenience of three unique configurations

SPECIALTY PRODUCTS

Complete monitoring solutions to suit your needs

At Dosimetry Services we understand the importance radiation monitoring plays in your business and in maintaining the health of your employees. With this in mind, we have a wide array of radiation monitoring products to meet your needs. We can help you determine the right products for your business and provide accurate exposure reports.

The Dosimetry Services Division specialty product line includes:

- High Dose Dosimeter
- CR39 Neutron
- REMtrack™ Wallet Card
- Environmental TLD
- Leak Test

HIGH DOSE DOSIMETERS

Exacting measurement of extreme doses

Measures exposure in environments such as radiation therapy, research applications, equipment calibrations, or sterilization applications. This is the perfect measurement device where radiation dose levels exist between 2 and 500,000 rads. A reliable LiF TLD chip offers excellent response and is energy and dose independent for most levels up to 1,000 rads. For higher levels, we employ optical density filters, which reduce the excessive amount of light TLDs emit so the PM tube does not become saturated and assessment accuracy is assured.

dosimetry services

A Mirion Technologies Division

Featuring:

Global Dosimetry Solutions

CR39 NEUTRON FEATURES

- Can be combined with a dosimeter or used alone
- Energy independent
- Responds to intermediate and fast neutrons
- Accurate image analysis counting system
- Energy spectrum analysis is capable if used in conjunction with a TLD dosimeter
- Wear periods from one week to one year
- Computer-controlled automatic counting system provides objective, error-free dose assessments, and establishes a permanent record of exposure

REMTRACK WALLET CARD FEATURES

- Bar-coded for user identification and tracking
- Whole body dosimeter
- Convenient credit card size
- Can be customized with company logo
- Second chip option
- Choice of wallet card or clip-on badge

ENVIRONMENTAL TLD FEATURES

- Thermoluminescent dosimeter element
- Outdoor usage
- Responds to intermediate and fast neutrons
- Polypropylene holder and tamper-resistant pouch
- Variety of holder options available

LEAK TEST FEATURES

- Easy to use kit
- Automatic reorder or on-demand reorder
- Easy to follow instructions
- Contamination protection provided

CR 39 NEUTRON

Complete monitoring for intermediate and fast neutron detection

In facilities where employees work with neutron generators, linear accelerators or cyclotrons, CR39 Neutron provides accurate exposure determination. The CR39 may be used separately for neutron detection, or in conjunction with a TLD whole body. Exposure to neutrons cannot be detected by film and requires a specific calibration for TLD dosimeters. A computer-controlled system provides objective, error-free dose assessment and establishes a permanent record of exposure.

Unlike TLD, the CR39 Neutron Dosimeter is energy independent and a practical and convenient way to accurately monitor exposure to intermediate and fast neutron radiation.

REMTRACK™ WALLET CARD

Emergency monitoring convenience

The REMtrack™ wallet card is a personal radiation dosimeter. These wallet cards are extensively used by counter-terrorism operations, law enforcement and other personnel who encounter radiation emergency situations.

REMtrack consists of natural lithium fluoride chips positioned between high quality paper and polyethylene laminate material. Its unique bar-code identification system displays an individual's name, unique card number; plus issue and expiration dates, and offers an accurate chain-of-custody through the analysis process.

ENVIRONMENTAL TLD

Precision reliability to withstand the toughest environmental stresses

Environmental dosimeters are well suited to monitor low-level gamma radiation and withstand the most intense environmental situations. This dosimeter is designed for outdoor applications and may be used to measure radiation for site characterization, at site boundaries for regulatory compliance, and to monitor public exposure. Issued reports provide easy comparison to ion chamber results.

The Environmental TLD Dosimeter, encased in a holder that protects against moisture, can be attached to fences, gates, trees, or other objects in the environment for quick access.

LEAK TEST

Reliable radiation source for leak testing

The Dosimetry Services Division provides complete Leak Test kits for reliable testing of alpha, beta, or gamma emitting radiation sources. Once completed, you will receive a comprehensive report that lists each source tested and the results in microcuries (µCi).

An instruction sheet provides step-by-step instructions.

TECHNICAL SPECIFICATIONS:			
Badge Name	High Dose Dosimeter	CR 39 Neutron	REMtrack Wallet Card
Badge Type	11 = LiF Loose Chip* 12 = LiF Chipstrate*	15 PB = TLD760 with CR39[1, 2, 3] 15 DB = TLD760 with CR39[1, 2] 25 = TLD760 with ^{115}In* and CR39 35 = Genesis Ultra TLD[1, 2]	21= one LiF chip[1] 22= two Lif chips* 23= one Lif chip with ^{115}In* 24= two Lif chips with ^{115}In*
Description	Single chip of ^{n}LiF:Mg, Ti (TLD100 loose chip or a bar-coded chipstrate)	Plastic polymer used to as a track detector	Single chip of ^{n}LiF:Mg, Ti (TLD100 loose chip)
Manufacturer	Thermo Electron RMP	PPG	Thermo Electron RMP
Accreditations/Approvals/ Licenses	n/a	NVLAP (Code: 100555-0) HSE (United Kingdom)	NVLAP (Code: 100555-0)
Holder Type	High dose Loose chips- no holder Bag holder- chips placed in a plastic bag	Whole body Wrist Area Plastic bag	Personal card (loop through card for hanging)
Wear Location	Area, equipment	Whole body, area	Area, whole body
Minimum Reportable Dose	20 mrem (0.20mSv)	20 mrem (0.20 mSv)	20 mrem (0.20 mSv)
Useful Dose Range	Up to 500 krad (5kGy)	20 mrem - 5 rem (0.20 - 50 mSv)	20 mrem - 1000 rad (0.20 mSv - 10Gy)
Energy Response	Beta (MAX) 0.766 MeV - 5 MeV Photon 20 keV - 6 MeV	Neutron: 200 keV - 6 MeV**	Beta (MAX) 0.766 MeV - 5 MeV Photon 20 keV - 6 MeV

*Not accredited for personnel monitoring

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

1: NVLAP (Code 100555-0) accredited configuration

2: HSE accredited configuration

3: CNSC accredited configuration

TECHNICAL SPECIFICATIONS:

Badge Name	Environmental TLD 110	Environmental TLD 814	Leak Test
Badge Type	17= Environmental 110*	20= Environmental 814*	Leak Test kit*
Description	4-element Harshaw TLD (2 CaF:Dy [TLD200] and 2 LiF:Mg, Ti [TLD100] elements)	4 Element Panasonic TLD (1LiBO:Mn [TLD800] and 3 CaSO:Dy [TLD900] elements)	Gas proportional detector Sodium iodine detector
Manufacturer	Thermo Electron RMP	Panasonic	n/a
Accreditations/Approvals/ Licenses	ANSI N545-1975	ANSI N545-1975	n/a
Holder Type	Area with wall hanger Area with clip	Clamshell (clip, loop, or loop + clip) Clamshell wrist Clamshell area with wall hanger SoftPak (wrist, area, wall hanger)	n/a
Wear Location	Fence lines, trees, buildings	Area, equipment	n/a
Minimum Reportable Dose	n/a	n/a	0.001 µCi (37 Bq)
Useful Dose Range	0.05 mGy - 5 Gy	0.05 mGy - 5 Gy	n/a
Energy Response	Photon (TLD100): 40 keV - 6 MeV Photon (TLD200): 180 keV - 6 MeV	Photon: 180 keV - 6 MeV	n/a

*Not accredited for personnel monitoring

MIRION TECHNOLOGIES

2652 McGaw Avenue
Irvine, CA 92614
USA
Web: https://dosimetry.mirion.com
U.S./Canada +1.800.251.3331
U.K. 0170.629.9329
Worldwide +1.949.419.1000