heightec
with respect to gravity...™

FLEXOR
Energy Absorbing Lanyard

UK CA 0120
CE 0598
EN354: 2010
EN355: 2002
EN362: 2004

Manufactured by;
The heightec Group Ltd, Kendal, Cumbria LA9 6NH, UK

Type Approvals & Ongoing Assessments:
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Declaration Of Conformity available at heightec.com
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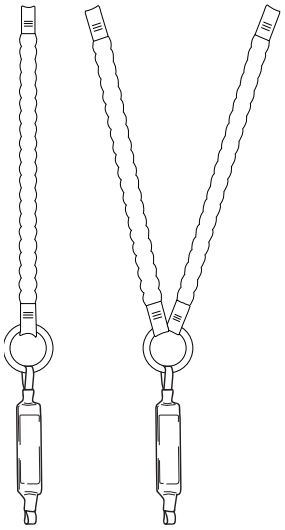
USER INSTRUCTIONS

heightec.com

Introduction
heightec FLEXOR energy absorbing layard with elasticated textile legs, are personal protective equipment designed to protect the wearer from falls from height. They are compliant with EN354, EN355 and connectors are compliant with EN362. The absorber will notdeploy at loads below 200kg making them suitable for work restraint.

FLEXOR lanyards are fitted with a removable cover for increased wear protection. The product label is located under the cover. Replacement covers are available but are not essential as the lanyard may be used without.

All FLEXOR lanyards are suitable for users up to 140kg.



Single Energy Absorbing Lanyard LE1XXX

Twin Energy Absorbing Lanyard LE2XXX

Use
Connect the end of the lanyard with the energy absorber to a suitable attachment point on a harness. For fall arrest the harness should be compliant with EN361 and the attachment points will be marked with an 'A'.

Connect the other end of the lanyard to an unquestionably sound structural element with a strength of 15 kN minimum or refer to BS7883 or EN795 for guidance on purpose made anchors.

Ensure that suitable connectors are used and correctly fastened. Refer to user instructions for connectors. Check fastening during use. Use a screwlink connector for semi-permanent attachment.

All attachments to anchors etc. should be made before entering the danger area. If it is necessary to change anchor point whilst in the danger area then an additional lanyard or a double lanyard should be used to allow attachment at all times.
For maximum protection the anchor point(s) should be as high as possible above the user.

Conduct a risk assessment prior to work. If sharp edges or corners of any type present a risk of damage appropriate precautions should be taken. Take into account the loads that the equipment and base structure will be subjected to.

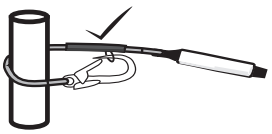
Restraint
When used for restraint the lanyard must be short enough when fully extended to prevent the user from reaching a position where they could fall.

Fall arrest
Appropriate for single person use with an energy absorber to EN355.
This lanyard should not be used for fall arrest without an additional energy absorber. (6kN max load).

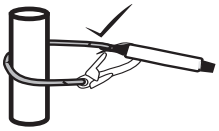
When used with an energy absorber the total length including connectors must not exceed 2m. Refer also to the instructions supplied with the absorber.

For maximum protection, the anchor point(s) should be as high as possible above the user. Remember to allow for any swing or pendulum if not working directly below the anchor point. A rescue plan must be in place in case of a fall.

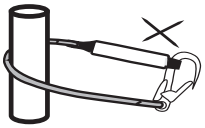
Do not connect the lanyard around itself, connect directly to the anchor or, where fitted, back to the ring either in the energy absorber or on the lanyard leg.



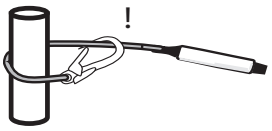
Avoid looping the lanyard around small joists etc. Sharp edges or corners of any type present a risk of damage and/or reduction in strength.



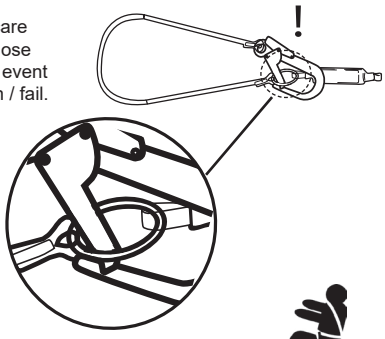
Connectors should only be loaded along their major axis and always with the gate closed and fully locked. If your lanyard is supplied with connectors refer also to the instructions for these items.

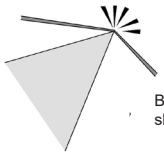


For twin lanyards ensure the unused leg is never connected to a strong part of the harness. Connect to the absorber ring or a sacrificial parking point on the harness.



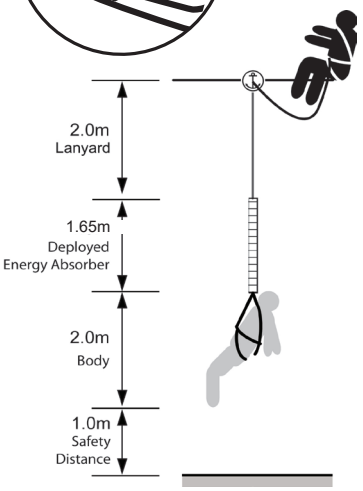
When using Scaffold Hook connectors, care must be taken to ensure the protruding nose does not catch in the parking ring. In the event of a fall this could cause the gate to open / fail.





Beware of sharp edges

Lanyard Length	2.0m	1.25m
Energy Absorber deployment	1.65m	1.0m
Length of body & harness	2.0m	2.0m
Safety distance	1.0m	1.0m
Fall Clearance	**6.65m**	**5.25m**



During a fall the energy absorber may deploy by up to 1.65m. Allow sufficient clearance between the anchor point and the ground or anything else below. heightec reccommend a clearance of 7.0m for 2m lanyards.

Ensure the path of a potential fall is clear and free from projections which could injure a falling person. Remember to allow for any swing or pendulum if not working in direct line with the anchor point.

For fall arrest always ensure a rescue plan is in place.

Materials
Lanyards are made of polyester elasticate webbing, polyamide, and aluminium alloy ring where fitted. Hazards affecting performance include temperature, chemical reagents, UV degradation, cutting and abrasion. Materials are not significantly affected by temperatures in the range -30 to +80 degrees Celsius.

Warnings

- Do not use this product outside its limitations, or for any purpose other than that recommended above.
- Do not 'choke' the lanyard unless specified otherwise.
- Do not cross-load connectors or load gates.
- Do not connect unused leg of twin lanyard to any strong part of harness.
- Always ensure there is sufficient fall clearance below worker, 7.0m minimum is recommended for 2.0m lanyards.
- Never extend the length of the lanyard.
- The total length of a lanyard system should never exceed 2.0m or less if stated on the energy absorber.
- Work positioning: a secondary means of protection may be necessary e.g. safety nets or a fall arrest system to EN363
- Fall arrest: only a full body harness is acceptable for use in fall arrest; a sit harness is unacceptable.

1 - Personal issue and traceability:
If this product is classed as personal protective equipment it should be individually issued to the person who will be using it. The product should remain traceable to the original certificate of conformity and a permanent record should be kept of its use. This user instruction forms part of the permanent product record. All users must receive and read a copy of these instructions and should understand what the instructions mean and be familiar with them, including, but not limited to function, suitability, compatibility of the product and inspection for defects arising from damage. A copy of this user instruction should be kept with the equipment, and referred to before and after each use. In the event of a rescue, these instructions should be provided to the rescuer.

2a - Anchor Points:
The anchor device or anchor point used should be of sufficient strength to sustain foreseeable loads in all permitted directions.
Specific standards requirements:
EN: Anchor device should conform to EN795, with minimum static strength of 12kN. heightec recommend a higher strength of 15kN as specified in the IRATA ICOP and BS7985.
When more than one system is attached to an anchorage, these strengths should be multiplied by the number of systems.
Anchorages should be positioned to minimise the potential for falls, and the distance and consequences of any potential fall, ideally above the user. Verify there is sufficient free space beneath the user to avoid collision with the ground or other obstacles and minimise sideways or pendulum falls. The connecting system instructions should give advice on clearance required, but a fall arrest energy absorber may extend by up to 1.75m.

2b - Further Requirements for Anchor Points in US (ANSI):
ANSI: (a) where certified, twice the maximum arrest force, or (b) where not certified 22.2kN (5,000lbf) for fall arrest, 13.3kN (3,000lbf) for work positioning, or 4.5kN (1,000lbf) for restraint. When designing, selecting, and certifying a fall arrest anchorage, the qualified person shall include the limitations on use of the system in fall protection procedures described in ANSI Z359.2. Design, selection and installation of certified fall arrest anchorages shall include determining a safe location where and how to connect those anchorages by taking into consideration the forces generated by arresting a fall, total existing and anticipated loading, load path, structural member strengths, connection and support strengths, stability, clearance requirements, swing fall, rescue deflection of the system, and impact on the structural members to which the fall arrest system is attached.
Anchorages selected for rescue systems shall have a strength capable of sustaining static loads, applied in the directions permitted by the rescue system of at least 3,100lbf for connection of rescue system only, or meet a Factor of Safety of 5:1 based on the static load placed on the system when the system is designed, installed and used under the supervision of a qualified person.

1

Persons engaged in rescue operations that are exposed to a fall hazard, must be provided an anchorage suitable for fall arrest in accordance with ANSI Z359.1.
Anchorage connectors shall not be attached to anchorages where such attachment would reduce the anchorage system strength below the applicable level set forth above or reduce the anchorage strength below the allowable level set by applicable structural codes. A suitable anchorage connector shall be used for rigging the connection of lanyards and lifelines to structural members. A lanyard shall not be connected back onto itself for use as an anchorage connector unless specifically designed for this purpose.
Anchorage connections shall be stabilised to prevent unwanted movement or disengagement of the rescue system from the anchorage. Verify system connections by pre-tensioning the system before applying the intended load.
Other components used in fall protection or work positioning systems must conform to the relevant standards, be compatible with each other and be used in accordance with their user instructions.

3a - Inspection and care:
The strength of this product may be affected by cuts, nicks, deep scratches, wear, abrasion, deformation, chemical contamination, UV degradation, exposure to flame, extreme termperatures and other factors. Keep this equipment away from such sources of damage.
Use this product with caution near moving machinery, electrical hazards, sharp edges and abrasive surfaces.
This product must be inspected before and after use, and particularly after being used for rescue, to ensure the product is in a suitable condition and operates correctly. Written records should be kept of all inspections.
If there is any doubt about condition of the product, or it has been subjected to a fall or substantial shock load, withdraw it from use until confirmed to be safe, in writing, by a person deemed to be competent by The heightec Group.
No repairs of this product should be undertaken, any attempt to do so may invalidate it's compliance and/ or certification.
The safety of users depends upon the continued efficiency and durability of this equipment, which must subjected to detailed visual and tactile examination by a competent person* at intervals of no greater than 6 months for textiles or 12 months for metals, taking into account relevant legislation, equipment type, frequency of use and environmental conditions. These examinations should be carried out strictly in accordance with the manufacturer's periodic examination procedures. Detailed examinations should include confirmation of the legibility of product markings.

*A competent person may be defined as someone who "...has appropriate theoretical and practical knowledge and experience..."

2

The results of examinations should be recorded. Intermittent inspections of components which may be subject to excessive wear may also be appropriate. The results of these need not be recorded. It is recommended that this product is marked with the date of the next or last inspection. Contact your distributor for information on suitable inspection procedures.

3b - Inspection criteria:
Textile products or elements: check material and stitching for damage including cuts, nicks, abrasion, fraying, discolouration, heat or chemical damage etc. Ensure stoppers are present on ends of adjustment webbing.
Metal devices or components: check for damage, corrosion, excessive tightness, sharp edges, excessive play, deformation, cracking or anything that might affect strength. Check security and correct operation of any moving parts e.g. side plates, return action of springs, cams, operating handles, bearings. Check function of closure mechanisms, where present (e.g. screwlink thread, connector gates).

3c - Cleaning, maintenance and storage:
Wash textiles by hand with non-detergent soap at approx 25°C (cool). Rinse and dry naturally, away from direct sources of heat and sunlight. If necessary use a disinfectant compatible with polyamide and polyester. Use diluted and rinse thoroughly in clean water. Dry as previously stated. These cleaning procedures must be strictly adhered to.
Mechanical metal products with moving parts should be occasionally oiled, at bearings or pivot points, with excess oil removed. Store and transport in a dry, clean condition, away from sources of severe vibration, humidity, direct heat, sunlight and any physical or chemical contaminants.

4 - Lifespan:
Textile products or elements: maximum 10 year lifespan from date of manufacture, subject to competent use, maintenance and examination programme.
Metal products: indefinite lifespan, subject to competent use, care and examination programme. The lifespan of all products will be reduced by normal wear and tear, particularly when used in abrasive or corrosive environments. In extreme circumstances, the life of an item may be reduced to a single use.

5a - General usage:
Users should be suitably trained and competent to work in situations where a risk of falling may be present or under the direct supervision of such a person, fully trained in the use of this product and free of medical contra-indications for work at height or rescue. Do not use this product outside of its limitations or if you are unsure of any aspect of its use. No alterations or additions may be made to the product. The heightec Group do not take any responsibility for injury or accident of any kind arising from the use of this product.

3

INSPECTION RECORDS		ID Number:	
Product:		PO/ Certificate No.:	
Model/Type:		Purchase Date:	
Manufacture Date:		First Use Date:	

Date	Observations / Comments	Actions	Inspector	Next Due

It is essential a rescue plan is in place to deal with emergencies and in particular to consider treatment and recovery of a fallen or suspended person. Rescue equipment must be present and personnel should be competent in its use. Orthostatic intolerance can occur when a person is suspended motionless in a harness, and is potentially fatal. Ensure that the rescue of a suspended person is carried-out promptly.
Contamination with oils, lubricants, water or solvents may alter the performance of the product. For rope devices behaviour will vary according to the age, type, diameter and characteristics of the rope used.

5b - Care of rope during use:
Take any steps necessary to protect the rope from damage during use, including rope protectors, edge protectors, intermediate anchor points or deviations to avoid sharp or rough edges. Consider also the position of the rope below the user. Ensure rope cannot suffer from the effects of wind, or become trapped around obstacles.

6 - Guarantee:
This product is guaranteed for three years against faults arising from manufacturing errors or materials defects. This guarantee does not include normal wear and tear, faults arising from uses for which the product was not designed and accidental damage.

7 - Notes:
If this product is re-sold outside the original country of destination the reseller shall provide these instructions in the language of the country in which the product is to be used.

Markings:
The following markings may be present on the product:

UKCA mark - UK Conformity

CE mark - European Conformity.

Read these instructions before use.

For use with kernmantel ropes conforming to EN1891 type A

XX-YY - Diameter range of rope which this product may be used, in mm

Direction of use

Date of manufacture is marked on the product in the form: DAY MONTH YEAR, DDMMYY eg.120510.

The ID no. is unique to this item.
Do not remove or obscure the product labels or markings.
Unique ID should be read in conjunction with product code and batch number e.g. D01 120510 123

4