



# Redcord Safety Information for slings and straps



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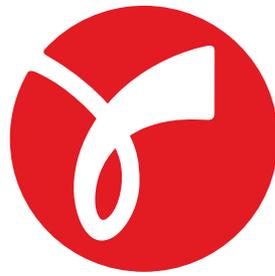
## Redcord Safety Information

Before any use, read this notice carefully and then retain it. It is important that anyone purchasing equipment from Redcord reads these instructions, understands all warnings and avoid incorrect use.

All equipment is sold with the understanding that the purchaser is familiar with the correct and safe use. All equipment must be used in a safe manner, and for the use it is intended for. Redcord assumes no responsibility for erroneous use or misapplication of any product sold. The responsibility for correct use rests with the user.

Before any use, read this notice carefully and then retain it. Redcord products are designed for exercise and treatment and should only be used in combination with other Redcord products.

Before you use the equipment for the first time a safety test needs to be performed. Se information at 1.4 Safety test.



redcord<sup>®</sup>

## 1.0 Safety information for slings and straps



Redcord Strap Redcord PowerGrip Redcord Wide Sling Redcord Narrow Sling Redcord Split Sling Redcord DoorFix

Redcord slings and straps are made of strong fabric. The max load is given with safety factors according to the EU directives. Fabric will however be exposed to wear and tear, and in some cases cleaning, storage, shock loads or wrong use may reduce the product life time. It is therefore important to frequently inspect and test the equipment for any damage, and replace it if damaged and/or worn out.

### 1.1 Storage

In order to ensure Redcord slings and straps a long life time, an ideal solution for storage is to hang the slings and straps on a wall caddy away from exposure of sunlight and heating elements.

The temperature in which the slings and straps are stored or used should not exceed 60°C. The equipment can be stored for up to 1 year without reducing the expected life expectancy and the warranty period.

Keep the slings and straps away from chemical agents, particularly acids which may cause invisible destruction of fibers.

#### 1.1.1 Warnings

- Do NOT store slings and straps in direct sunlight and UV exposure. UV can damage the product life expectancy
- Do NOT store slings and straps close to a heating element
- Do NOT expose the slings and straps to chemical agents, particularly acids.

Over time UV and heat exposure will shorten the life of the product. The threads will be brittle and lead to reduction of the max load.

## 1.2 Lifetime

Lifetime = Time of storage before first use + time in use.

Recommended maximum time in use for straps and slings are 5 years, for normal and soft use. See definition for soft and normal use in point 1.2.2 below.

### 1.2.1 Duration of storage

In good storage conditions the slings and straps may be left for up to 1 year before first use without affecting the duration of its future time in use. Storage more than 1 year reduces the recommended time in use. See storage information. (link)

### 1.2.2 Time in use

- The time in use is limited to 5 years, normal use
- The time in use depends on the frequency and mode of use

Mechanical demands, abrasion, UV exposure and humidity may degrade the properties of the slings and straps.

Soft use: Home exercise, private use, a few users some times a week  
Normal use: Neurac Treatment by professionals, used every day  
Hard use: Fitness, used several times a day by many users

### 1.2.3 Warnings



This is the normal and soft lifetime indicated, a sling or strap could be destroyed much faster by hard use or if used or stored incorrectly. It is the inspections which determine if the product must be scrapped more quickly. Proper storage between uses is essential.

If the slings and straps are used more than 5 years, please see procedures and tests to perform regular inspections. (link)

Product	Time in use years	Warranty years	Max load in kg	Safety factor 1*	CE- marked 2*
Redcord Narrow Sling	5	2	150	4	yes
Redcord Wide Sling	5	2	150	4	yes
Redcord Split Sling	5	2	100	4	yes
Redcord Strap	5	2	100	4	yes
Redcord PowerGrip	5	2	100	4	yes
Redcord Doorfix	5	2	50	4	yes

1\* Ratio between ultimate strength and allowable load during use Safety factor in accordance with Directive 2006/42/EC on machinery

2\* Redcord AS declares on its own responsibility that our products are in compliance with Regulation No. 25 of 12 January 1995 relating to Medical Devices which implements COUNCIL DIRECTIVE 93/42/EEC of 14 June 1993 on MEDICAL DEVICES

# 1.3 History of Redcord Slings and straps

October 2016 -

New molded PowerGrip



April 2014 -

Redcord slings and straps.

Grey webbing with extra UV protection:

A sling with grey webbing around the triangle ring.



Redcord Strap



Redcord Split Sling



Redcord Narrow Sling



Redcord Wide Sling



Redcord PowerGrip

January 2012 -

Redcord slings and straps.

Grey webbing with extra UV protection:



A sling with grey webbing



Redcord Strap



Redcord Split Sling



Redcord Narrow Sling



Redcord Wide Sling



Redcord PowerGrip



Redcord DoorFix

June 2009 - December 2011

Redcord slings and straps.

Red webbing without extra UV protection:



A sling with red webbing

**⚠ WARNING. Do not use these slings and straps**



Redcord Strap



Redcord Split Sling



Redcord Narrow Sling



Redcord Wide Sling



Redcord PoweGrip



Redcord DoorFix

**Regular safety test must be performed!**

January 2008 - June 2009

 **WARNING. Do not use these slings and straps**

Redcord slings and straps with plastic sleeve.

Red webbing with UV protection:



A sling with red webbing



Redcord Strap



Redcord Split Sling



Redcord Narrow Sling

January 2008 - June 2009

 **WARNING. Do not use these slings and straps**

Redcord slings and straps with plastic sleeve.

Red webbing without extra UV protection.



A sling with red webbing



Redcord Wide Sling



Redcord PowerGrip

**Regular safety test must be performed!**

December 1999 - January 2008

Redcord slings and straps without the plastic sleeve:

We do NOT recommend using these slings and straps anymore. Regular safety test MUST be performed if in use.

**WARNING:** 

Do NOT use these slings and straps!



- December 1999:

Redcord slings and straps with plastic D-ring:

**WARNING:** 

Do NOT use these slings and straps!



- 2003: Redcord slings and straps with rope and cleat

**WARNING:** 

Do NOT use these slings and straps!



Redcord Strap



Redcord Split Sling



Redcord Narrow Sling

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- December 2010. Redcord Wide Sling with rope and cleat

**WARNING:** 

Do NOT use these slings!



## 1.4 Inspections

Inspect your slings and straps frequently to make sure that they have the required strength.

### 1.4.1 Regular inspections

The products must be inspected periodically and meticulously, every month if in frequent use.

The user is recommended to make a visual check of the sewing and webbing each time before use.

Your slings and straps should always be without any visible damage. We also recommend that the safety test (link) is performed before first use and then on a monthly basis to test the strength of your equipment.

Regular inspection is necessary to make sure the sling's max load is intact. Redcord slings are made of fabric and normal use will over time wear out the slings and straps. The need for periodic inspections cannot be overemphasized. No slings and straps can be used indefinitely. Periodic inspections help determine when to replace it. Keep inspection records to help pinpoint problems and to ensure periodic inspections interval. Find inspection records at page 19.

The frequency of the inspections will depend on time in use, storage of slings and straps prior to use, and frequency of use etc. When in doubt, inspect the slings and straps prior to each use.

### 1.4.2 Warnings



The slings and straps are weight bearing and can break during use if they get damaged. Therefore the slings and straps must be scrapped and replaced:

- If the slings are bleached
- If the webbing is flossy or crispy
- If the D-ring is pulled apart
- If the plastic tube of PowerGrip has cracked
- If the webbing has been damaged by abrasion, cutting, chemical agents or any other means
- If the stitching has been damaged
- If the slings and straps have been in contact with any dangerous chemicals
- If there are any other doubt as to its security, durability or strength
- Respect the recommended maximum time in use

If the slings and straps have any of the above mentioned visible damages, then immediately discontinue use of the slings.

**See examples on the next two pages.**

## Bleached slings

Redcord slings shall have a normal bright red color and should not be bleached.

CAN BE USED



This sling has a bright red color and can be used.

DO NOT USE



**WARNING:**



Do NOT use bleached slings

If the color on the sling is bleached, replace it with a new sling. This sling is bleached and should not be used.

## Flossy and brittle webbing

The webbing around the D-ring shall be smooth with a bright red color.

CAN BE USED



This webbing is smooth with a bright red color and can be used.

DO NOT USE



**WARNING:**



Do NOT use slings with flossy webbing



If the webbing is bleached or there are any signs of flossy webbing, the sling is worn out and must be replaced.

## Divided D-ring

The D-ring used for the slings shall be in one piece and with a smooth surface.

CAN BE USED



DO NOT USE



**WARNING:**



Do NOT use slings with partly open D-ring.

If the D-ring is not completely closed, the sling shall not be used.

## Crack in the PowerGrip tube

The plastic tube inside the PowerGrip shall be without cracks and sharp edges. The plastic tube inside PowerGrip in this picture is cracked and shall not be used.

CAN BE USED



DO NOT USE



**WARNING:**



Do NOT use PowerGrip with cracked plastic tube.

When in doubt about the condition of the slings, withdraw the slings from use. Destroy, rather than discard slings and straps that are defective, to avoid that the slings and straps may be used again by someone not aware of the hazard of the defect.

## 1.5 Safety test

### 1.5.1 Before first use

The safety test MUST be performed to ensure that the seams and slings are in good condition.

### 1.5.2 How to test your Redcord equipment

To test the strength of your equipment Redcord recommends that you perform these tests before the first use and then once a month the slings are in use. All slings and straps must be used properly, in a safe manner and only for their intended use.

Please note that the testing of slings and straps will also give an implicit test of the rope, the apparatus and the suspension points.

### 1.5.3 Testing of slings and straps

Please attach the sling to the ropes and lower the sling to about 4 inches/10 cm above floor level. Put one foot in the sling and the other foot on the floor, bounce up and down gently using your full body weight. You have now tested that the sling tolerates a load exceeding your bodyweight.



Testing of slings



Testing of straps and PowerGrips

## 1.6 Max load and safety factors

### 1.6.1 Max load

Respect the max load limit. It is given for your safety.

- |   |        |
|---|--------|
| • The max load limit for the Narrow Sling | 150 kg |
| • The max load limit for the Wide Sling   | 150 kg |
| • The max load limit for the Split Sling  | 100 kg |
| • The max load limit for the Strap        | 100 kg |
| • The max load limit for the PowerGrip    | 100 kg |
| • The max load limit for the DoorFix      | 50 kg  |

Even though the Redcord slings and straps are tested and constructed for much higher load, please respect the max load to give your equipment a longer life expectancy and keep your exercise safe.

Never exceed the max load limits. The max load is the maximum load which should be applied to each of the slings and straps. This must be followed even when the sling and straps are new and the load is uniformly distributed. All information about max load for each sling and straps are based upon normal conditions.

### 1.6.2 Safety factors

The minimum safety factor used by Redcord is 4 in accordance with the EU directives. For example: a strap or sling labelled with max load 100 kg has been produced with an ultimate strength of minimum 400 kg.

The safety factor is the ratio between ultimate strength and the allowable max load during use. The Safety factor is in accordance with Directive 2006/42/EC on machinery.

### 1.6.3 Warnings

The following conditions will reduce the max load of the slings and straps:

- Storage in direct sunlight and exposure to UV
- Storage close to a heating element
- Chemical used for cleaning
- Hot steam
- Shock loads

After being exposed to such conditions it is necessary to perform a load capacity test to check the max load.

## **1.7 Warranty**

### **1.7.1 Warranty years**

The slings and straps are guaranteed for 2 years against any faults in materials or manufacture.

Warranty period runs without interruption for a period of 24 months from the shipment date of the products from Redcord AS.

### **1.7.2 Exclusions from the warranty**

Exclusions from the guarantee: normal wear and tear, modifications or alterations, incorrect storage, poor maintenance, negligence, improper or incorrect usage.

Warranty is valid only if there are deficiencies in the product, i.e. it is clearly wrong according to technical specification and how the product is intended to be. Incorrect use and normal wear and tear are not eligible to claim. Redcord's obligations pursuant to this warranty are limited to repair or replacement.

## 1.8 Incorrect use

### 1.8.1 Information

The various cases of wrong use shown in this notice are not exhaustive, there are numerous wrong uses possible, and it is not feasible to show them all. Failure to follow these warnings increases the risk of injury. The users are responsible for their own actions and decisions.

Any slings and straps can break if abused, misused or overused. Any well-designed and well-built product can become hazardous in the hand of a careless user.

Use only recommended exercises shown in Redcord's user manuals, Redcord posters, Redcord brochures, Redcord's website, [www.redcord.com/www.redcord.no](http://www.redcord.com/www.redcord.no), or shown during Redcord courses.

### 1.8.2 Examples of incorrect use

To avoid the most common hazards the following should be followed:

- Do not use the equipment for other purposes than Redcord exercises and Neurac treatment
- The use of "second-hand" equipment is strongly discouraged. Please see regular inspections and safety test (Links)
- Avoid shock loads - shock loads may damage your slings permanently
- Do NOT use the sling as a swing - Repetitive movements will involve much more wear and tear than any normal use and may reduce the strength permanently (see picture)
- Do NOT use the slings and straps in upside-down positions, unless your shoulder is in contact with the floor (see picture)
- Do NOT use the slings and straps for gymnastic exercises.



The sling used as a swing



Normal use



Shoulders not in contact with the floor



Shoulders in contact with the floor

## 1.9 Care and maintenance

### 1.9.1 Cleaning/washing

Clean the slings and straps correctly:

- Slings and straps can be cleaned with a soft brush and hot soapy water below 60° C or with a solution of household detergent (dish washing liquid). If necessary, use a delicate fabric cleaner and use a brush made with synthetic bristles.
- It is also possible to wash the slings and straps in the washing machine. Select a gentle wash program and do not exceed a temperature of 60° C. Standard laundry detergent should be used. Air drying in normal room temperature without sun exposure.
- Standard disinfectants found at hospitals and institutes can be used.
- Diluted alcohol (minimum 50 % diluted) which vaporizes in normal room temperature may also be used for disinfection.
- If the slings and straps are wet after use or washing, leave them to dry in a cool, shaded place.

### 1.9.2 Warnings:

- Do NOT use softener when washing/cleaning the slings and straps
- Do NOT use benzine and other stain removers to clean the slings and straps
- Do NOT disinfect with hot steam
- Do NOT dry in sunlight or by using a drying cabinet
- Do NOT allow contact with chemical agents, particularly acids which may destroy the fibers without visible evidence
- Do NOT expose unnecessary to sunlight and UV light, store the slings and straps in a cool, shaded place, away from dampness and direct heat.

## 1.10 UV protection

Some straps and slings produced up to December 2011 did not have sufficient UV protection, (see section 1.2.4). Unnecessary exposure to sunlight and UV should therefore be avoided. Store the slings and straps in the shade.

## 1.11 Meaning of markings

### 1.11.1 CE (Conformity to the European PPE Directive)

Redcord AS declares on its own responsibility that our products are in compliance with Regulation No. 25 of 12 January 1995 relating to Medical Devices which implements COUNCIL DIRECTIVE 93/42/EEC of 14 June 1993 on MEDICAL DEVICES



### 1.11.2 Serial number:

The digits indicate the month and year of production.  
The slings and straps produced after January 2014 have been labeled with max load capacity and serial number.



← Label

## 1.12 Responsibility

Redcord is not responsible for the consequences of incorrect use, or if the warnings, care and maintenance instructions are not followed. Repair or modification of the slings and straps by yourself is also not accepted.

## 1.12 Inspection Redcord for slings and straps

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