How Back on Track works

Back on Track's joint and muscle support are all made of functional textiles with heat reflective properties. The textile is a synergy of ancient Chinese experience and modern scientific textile technology. During the manufacturing of polyester- or polyester fibres, the ceramic particles are fused into the fibres. When heated, the ceramic particles radiate a heat back towards the body. This reflected heat is long-wave heat radiation, which is also known as long wave infrared radiation.

Heat Radiation

It is well established and documented that long wave infrared heat radiation increases the blood circulation. The increased blood circulation in the tissues helps to relieve muscles tension and improves performance. One important property is the injury prevention effect, which you get when the protections are used for training and competition.

Deepening in the function

Heat energy can be transported in three ways: conduction (transfer), convection or radiation.

1. When heat transfer or conduction occurs, the heat in a material spreads from one part of the material to another.
2. Convection is the loss of heat when a heated liquid or gas (e.g. air) is displaced, carrying the heat with it. The insulating material in ordinary clothing and joint supports, for example cotton, wool and neoprene, is designed to prevent convection and thus retains body heat in the air outside the skin.
3. Radiation occurs when a heat source emits heat radiation, where upon it collides with another surface and heats it. Back on Track's products work with radiant heat, the purpose of which is to avoid trapping the heat through insulation. This is so that the protection has a respiratory function, while heat energy in the body tissues increases.

People and animals radiate body heat, both at rest and in activity, however less heat is radiated when at rest. When a material is hit with heat rays, three things can occur.

1. The rays can pass straight through the material, which is called transmittance. An example of this is when the sun's heat rays hit a glass plate. The majority of the heat radiation passes through the glass. You would feel this effect if you were to stand in a room with the sun shining through the window.

2. The second thing that can happen is that the rays bounce on the material's surface and are reflected away, called reflectance. If all the heat is reflected the material will not be heated as none of the rays radiate through the material.
3. The third that can happen is the material absorbs the heat rays, which is called absorbance. Radiated heat can have different wavelengths depending on the temperature of the heat source and the material. Radiant heat is usually within the range of what is called infrared radiation, which means wavelengths between 0.7 microns and 1 mm. A material absorbs different amounts of heat radiation depending on the wavelength of the radiation. This is called the material's absorption spectrum. The radiant heat absorbed increases the heat content of the material.

A material has not only an absorption spectrum but also an emission spectrum. An emission spectrum essentially means that different materials radiate heat of various wavelengths within different temperatures. The amount of radiation and the radiation wavelength varies depending on the heat source temperature and the emission spectrum of the heat source materials. Generally, one can say that the lower the temperature heat source is the longer the wavelength of the heat radiation.

When manufacturing the polyester and polypropylene fibres that Back on Track products are made of, ceramic particles are fused into the textile fibres. The selection of these ceramic particles is based on which absorption and emission spectrum they contain. The result is that when the ceramic particles absorb the body's heat radiation, they expel heat of a specific wavelength, which is based in the long-wave infrared zone of the thermal radiation spectrum. It is well established and documented that long wave infrared heat radiation has a pain reducing effect and increases blood circulation.

Just like other materials, body's tissues has it's own absorption spectrum. The wavelength that the ceramic particles issue is absorbed in the cells. A signal is sent to the brain telling it that heat energy has increased, to which the brain opens up the veins. The absorption happens not only in the skin but also deeper down the tissue, which makes the veins wider not only superficially but also in the muscles and around the joints. The increased blood circulation in the tissues relieves muscle tension and strengthens the body's own ability to reduce inflammations and heal injuries. The products are therefore often used in cases where inflammation is part of the problem. Another important application is injury prevention, which you get when the protections are used for training and competition.

INSTRUCTIONS FOR USE

Please read carefully, both the usage and washing instructions, before using the product.

All Back on Track products should be implemented gradually. To start with, use the product for a maximum of four hours a day for the first 2-3 days. The body then has the opportunity to familiarize itself with the fabric's effects.

The reason we recommend starting with a maximum of 4 hours use is that some people experience pain in the beginning. In horses and dogs, it manifests itself as a swelling. This is due to the increased blood circulation, which is actually a good indication that the ceramic fabric is taking effect. This initial pain or swelling can occur anywhere from a few to several hours of use. You should then cease using the product any more that day, and instead introducing it carefully and more gradually over the following days.

After the introductory period you should up the usage to a minimum of 8 hours per day, preferably more. After only an hour or so is often perceived a positive effect on tight muscles and stiff joints. More persistent problems may require several days, usually between 10-20, before the desired result is achieved.

After the introductory period of 2-3 days it is important to continue to use the product intensively at least 10, preferably 20 days, before assessing its impact. Since this ceramic fabric reflects more of the body's heat radiation as you move, the effect is greatest if you wear the product when active. Back on Track also works when resting, even when you sleep.

Continue to use the product according to the routine you develop, or use it for two weeks and then take a break in the third week, this in order to avoid dependency. The sensitivity of this dependency varies from individual to individual. For maximum effect, the ceramic fabric should be in direct contact with the skin (if necessary, a thin cotton cloth inserted between).

Note: Caution is advised during simultaneous use with liniment or similar, since the effect is amplified.

Use the product only as directed and consult a doctor if symptoms persist. Do not use during pregnancy.

Specific instructions for use on horses and dogs

Keep in mind that the effect of Back and Track increases with movement when the body heat increases, so in addition to using pads and blankets in the stables, the horse can also be allowed to move around with the Back on Track products.

Especially suitable in this context is Riding Boots, Bandages, Saddle Pads, Exercise Rug and Exercise Machine Rug.

For long term problems, the horse may need to use Back on Track for an extended period. Use the product for two to three weeks and have a break one week, to see if the symptoms persist.

As a preventive measure, Back on Track can be used with regular breaks. Use Back on Track 1 day before and 2 days after exercise and then stop until the next workout. For warm-up, use 1-2 hours before and 2-4 hours after exercise.

For dogs, one often uses the standard Dog Rug, which is rain repellent and breaths. However, it should be noted that for long-running problems, Back on Track should be used for several weeks, at least 8 hours per day, with regular breaks in order to achieve the desired results. This means that the dog can use the rug day and night, indoor as well as outdoor, 24/7. If being used at night, it is probably more comfortable for the dog to wear the Mesh Rug, which is more adaptable. Alternatively, the dog may be provided with a mattress with "memory foam" or a cover of Back on Track to the sleeping basket. The foam part molds to the body shape and relieves a sore back.

MEASUREMENTS

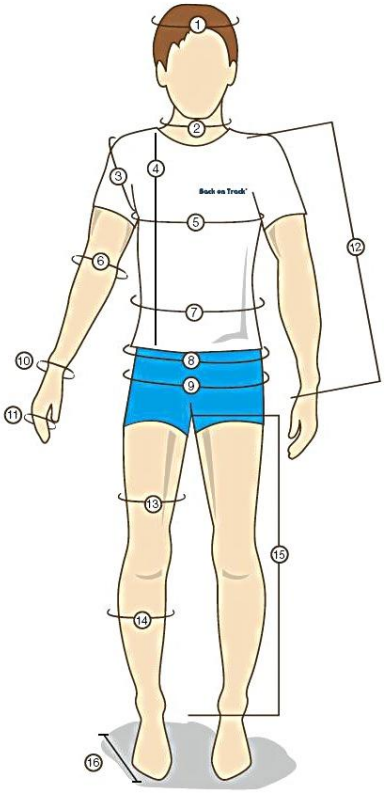
Size

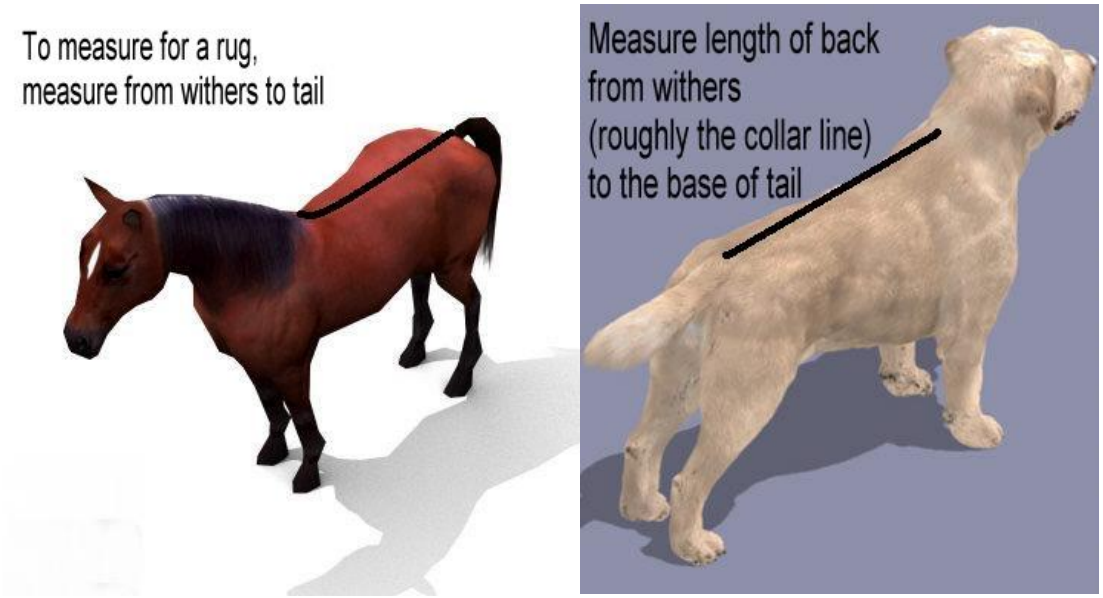
PROTECTION	XS	S	M	L	XL	XXL	XXXL
Ø Neck (2)	31-34 cm	35-38 cm	39-41 cm	42-44 cm	45-48 cm		
Ø Elbow (6)	23-25 cm	26-29 cm	30-32 cm	33-36 cm	37-41 cm		
Ø Wrist (10)		14 cm	16 cm	18 cm	20 cm		
Ø Waist (7)		65-95 cm	85-115 cm	100-130 cm	115-145 cm		
Ø Knee (13)		33-38 cm	39-41 cm	42-45 cm	46-49 cm	50-53 cm	54-57 cm
Ø Knee, with Velcro (13)		35-41 cm	39-43 cm	42-46 cm	46-52 cm	52-61 cm	60-64 cm
Ø (14)		34-37 cm	38-40 cm	41-43 cm	44-46 cm		
(16)		35-38	39-42	43-45			

UNISEX, top	XS	S	M	L	XL	XXL	XXXL
Ø Head (1)		54-56 cm	57-59 cm	59-61 cm			
Sweater	42-44	44-46	46-48	48-50	50-52	52-54	54-56
Sweater length (4)	67 cm	68 cm	69 cm	70 cm	71 cm	72 cm	73 cm
Ø Neck (2)	33 cm	35 cm	39 cm	43 cm	45 cm	48 cm	50 cm
Arm length (12)	51 cm	52 cm	53 cm	54 cm	55 cm	56 cm	
Ø Armpit (3)	46-47 cm	48-49 cm	50-51 cm	51-53 cm	54-55 cm	56-57 cm	57-58 cm
Ø Breast (5)	90-94 cm	95-99 cm	100-104 cm	105-109 cm	110-114 cm	115-119 cm	120-124 cm
Ø Hip (8)	90-94 cm	95-99 cm	100-104 cm	105-109 cm	110-114 cm	115-119 cm	120-124 cm
(11)	5-6 cm	6-7 cm	7-8 cm	8-9 cm	9-10 cm		

WOMAN	XS	S	M	L	XL	XXL	XXXL
Sweater	34-36	36-38	38-40	42-44	50-52	52-54	
Sweater length (4)	58 cm	60 cm	62 cm	64 cm	66 cm	68 cm	
Ø Neck (2)	32 cm	35 cm	39 cm	43 cm	45 cm	48 cm	
Arm length (12)	48 cm	49 cm	50 cm	51 cm	52 cm	53 cm	
Ø ArmpitAxilla (3)	34 cm	36 cm	38 cm	40 cm	42 cm	44 cm	
Ø Breast (5)	84-87 cm	88-91 cm	92-95 cm	96-99 cm	100-103 cm	104-107 cm	
Ø Hip (8)	84-87 cm	88-91 cm	92-95 cm	96-99 cm	100-103 cm	104-107 cm	
Seat, long johns (9)	79-85 cm	86-92 cm	93-99 cm	100-106 cm	107-113 cm	114-120 cm	121-126 cm
(15)	73 cm	74 cm	74 cm	76 cm	76 cm	78 cm	78 cm

MAN	XS	S	M	L	XL	XXL	XXXL
Seat, long johns (9)	79-85 cm	86-92 cm	93-99 cm	100-106 cm	107-113 cm	114-120 cm	121-126 cm
Inner leg length (15)	73 cm	74 cm	74 cm	76 cm	76 cm	78 cm	78 cm





WASHING

Back on Track products can be machine washed at 30 C with normal detergent. Air dry.

Note: Do not use bleach or fabric softener, or tumble dry. The product should be ironed at a maximum temperature of 50 C. The ceramic powder is fused in the fibres of polyester/polypropylene and does not separate when washed. The textile loses efficiency with time and extended use.

The textile is produced in China and consists of 100% polypropylene (PP) with ceramic powder or 50% polyester with ceramic powder and 50% cotton.