

Protechmasta
Protecting & Caring





Protechmasta
Protecting & Caring

The **issue** for the performance horse

For optimal function horses need to keep their body regulated at a constant temperature. The equine's body can only do this if the heat it generates is balanced with the heat that it loses.

This heat which is transported to the surface of the skin through the blood circulation can be influenced by the air temperature so the horse will lose heat or gain heat according to the environmental conditions.



A black and white photograph of a rider on a horse, likely in a performance or working setting. The rider is wearing a light-colored top and dark breeches, and is seated in the saddle. The horse is in motion, with its legs extended. A decorative wireframe overlay, consisting of many thin, curved lines, is visible in the upper half of the image. The text "Working horses lose heat easily which can cause stiffness and tired muscles" is overlaid in the bottom right corner, with the word "heat" in red.

Working horses
lose **heat** easily
which can cause
stiffness and tired
muscles



Protechmasta
Protecting & Caring

The **solution** Far Infrared (FIR)

Protechmasta products contain a special ceramic powder that is blended with the yarns of the lining fabric. Ceramic both emits and reflects Far Infrared (FIR) rays designed to deliver thermal radiation effects.

The air mesh fabric is designed to take away moisture and to regulate temperature by circulating warm air around the horse at a constant rate and in keeping with the equines present temperature and environmental temperature.

- ✓ **Reduces inflammation**
- ✓ **Detoxifies**
- ✓ **Boosts the immune system**
- ✓ **Boosts metabolism**
- ✓ **Relieves fatigue**
- ✓ **Improves suppleness**





Protech**masta**
gently increases
blood flow,
detoxifies and
promotes healing

Protechmasta Infrared Rug



Code MA5391 **Colours** Black

Size 4'6 - 7'6 **EU Backseam** 90cm - 170cm

The Protechmasta therapy system enhances your horses muscle functions.

The Protechmasta Infrared Rug Technology will gently increase blood flow, detoxify and promote healing for your horse. This is ideal for use before work to prepare the muscles for exercise, but most importantly after work, to help reduce lactic acid build up and aid the repair process of any damage inflicted.

Protechmasta products contain a special ceramic powder (filaments) that is blended with the yarns of the lining fabric, providing long lasting properties that will not wash out. These filaments are impregnated with Far Infrared (FIR) emitting nanoparticles designed to deliver thermal radiation effects. The rug's air mesh fabric is soft and absorbent, designed to take away moisture and regulate temperature by circulating warm air around the horse at a constant rate and in keeping with the equines present temperature and environmental temperature.

The benefits of the FIR heating elements of the Protechmasta rug lie in its ability to increase the blood flow of the equine by activating vasodilation and then keeping it constant. This widening of the blood vessels will improve metabolic rate and oxygenation of blood and cells.

The heat generated from increased blood flow also makes connective tissue more flexible as it's extensibility will increase, allowing for improved suppleness and prevention of injury. It temporarily decreases joint stiffness, pain, and muscle spasms. Heat reduces inflammation and the build-up of fluid in tissues (oedema).

Professionally tested by

Ian Stark OBE

Olympic Eventer and Course Designer

"The improvement was incredible. There was an immediate improvement on a young horse that was always a bit back up when starting."









Protechmasta Fixed Neck Infrared Rug



Code MA5685 **Colours** Black

Size 4'6 - 7'6 **EU Backseam** 90cm - 170cm

Masta's therapy rug is designed to enhance and stimulate your horse for improved health with fixed neck cover for greater coverage.

Super Wicking: Air mesh fabric that is soft and absorbant to wick away moisture effectively.

Regulates temperature: Air pockets in the Air Mesh will help circulate warm air around your horse to prevent him from cooling down too quickly.

Far Infra-Red Technology: Gently increases blood flow bringing extra oxygen and nutrients to muscles and faster removal of toxins leading to a more energised yet relaxed horse. Special ceramic powder is blended with the yarns of the lining fabric for long lasting properties that will not wash out.

Easy to use fastenings: Single front chest strap, cross surcingles and fillet string for a secure fit.



Professionally tested by

Sandie Chambers

**Equine and Human Sports
Performance Scientist and
Psychologist**

“Protechmasta benefits the equine at a cellular level, encouraging improved circulation resulting in a reduction of inflammation”

Protechmasta

Leg Wraps



Code MA5422 **Colours** Black

Size P, C, F, XF **Set of Two.**

Masta's therapy boots are ideal for healthier tendons and ligaments and as a result, producing a better performance.

Far Infrared Technology gently increases blood flow to the tendons and ligaments making connective tissue more flexible as it's extensibility increases, allowing for improved suppleness and prevention of injury. It temporarily decreases joint stiffness, pain, and muscle spasms. Heat reduces inflammation and the build-up of fluid in tissues (oedema).

Increasing the supply of oxygen and nutrients to the horse's legs is essential in the process of repairing wear and tear. A special ceramic powder is blended with the yarns of the air mesh fabric for long lasting properties that will not wash out. Easy to use fastenings and an ergonomically shaped design help to give the best fit to the front and back legs. Finished with easy close Velcro straps to ensure secure and comfortable fit.



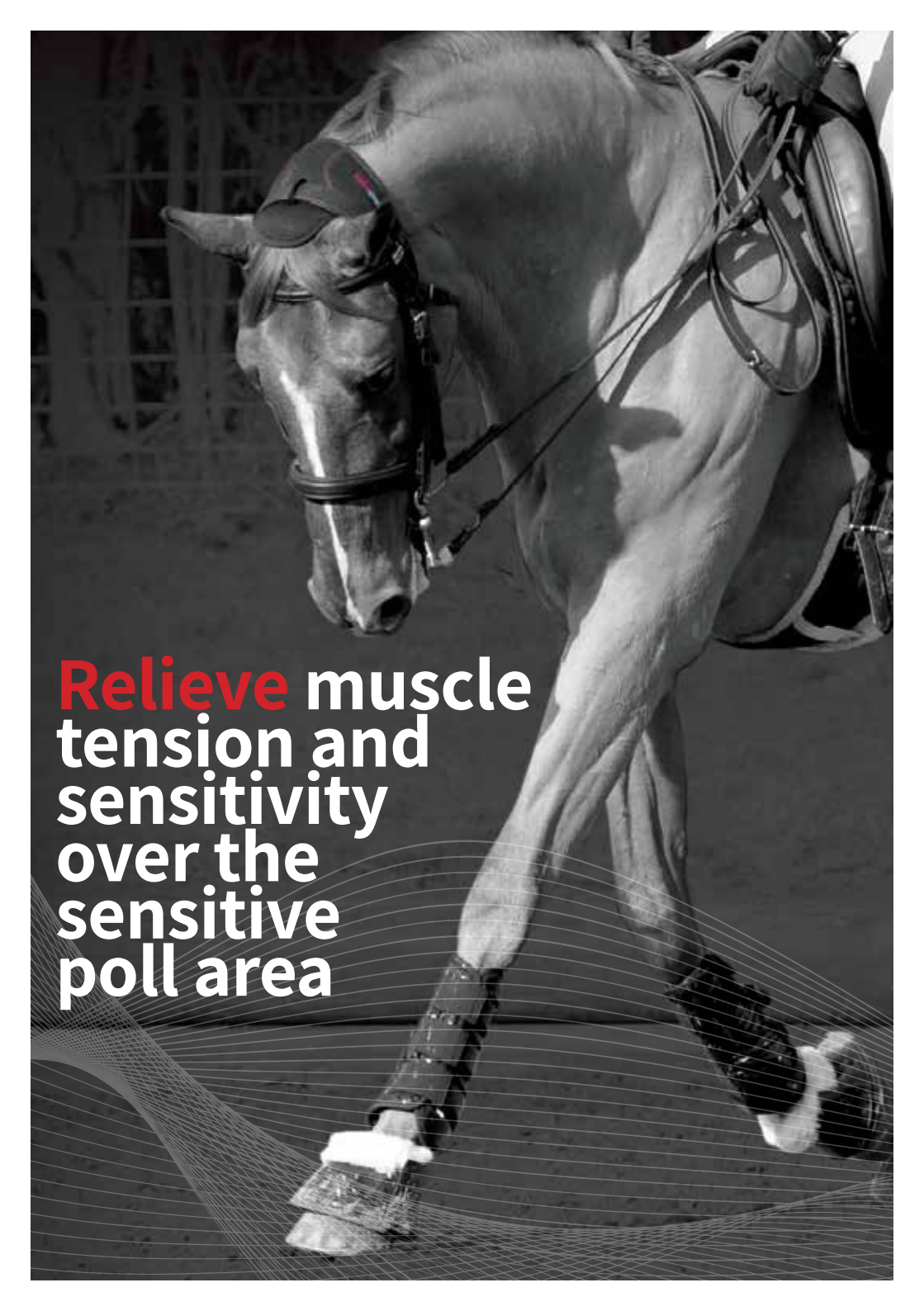


Professionally tested by

Alice Oppenheimer
International Grand Prix Dressage Rider

“Bracken uses the the Protechmasta products every day, when she comes in from the field and after exercise. She has suffered in the past from muscle stiffness, this has significantly improved since using Protechmasta.”





Relieve muscle
tension and
sensitivity
over the
sensitive
poll area



Protechmasta Poll Pad



Code MA5686 **Colours** Black

Size P,C,FXF

Masta's therapy poll pad.

Therapy System: Helps relieve muscle tension and sensitivity behind the ears and over the poll.

Far infra-red technology: Gently increases blood flow to muscles and nerves initiating the domino effect of benefits.

Breathable: Special airflow neoprene offers protection, comfort and distribution of pressure, whilst airmesh wicks any moisture away fast and effectively.

Easy to use fastenings: Sits neatly under bridle or headcollar and is secured with hook and loop fastenings.



Professionally tested by

Ieuan Pritchard

Equine Vet BVSC MRCVS

“All horses showed a marked improvement. They were much more relaxed and became less tense & stressed after wearing the rug. It's light, easy to use & affordable.”

Protechmasta Independent Tester

Sandie Chambers is an Equine and Human Sports Performance Scientist and Psychologist. Sandie studied Sport Science at Loughborough University, Equine Science at Moreton Morrell and is currently completing a Master's degree in Sport Performance Psychology. Sandie is also a Master practitioner in Neuro Linguistic Programming.



Sandie is a world authority on the use of Thermography for identifying and monitoring injuries in the Equine and Human Sports field. Sandie discovered the benefits of Infrared thermography for the equine athlete in 2003 and following years of research and testing developed highly comprehensive, standardised and reliable training programmes in the use of thermography (to be used to identify early signs of inflammation allowing for intervention to take place and for monitoring recovery of existing injuries) for the veterinarian, physiotherapist and other veterinary and sports professionals.

Protechmasta Testing

In order to test the effects of the Protechmasta, an independent study was conducted by scientist Sandie Chambers of Equitherm. Using 7 horses, Sandie conducted baseline thermography scans to assess the horses' state as a comparison before wearing the Protechmasta and at 30 minute intervals up to 180 minutes during the use of the rug.

Given that the ambient temperature was as low as 9 degrees and the horses were stood tied up in their boxes, the horses did not lose body heat to the atmosphere by convection or conduction as would be expected of a horse without a rug and that is also in contact with the cold ground. They also did not sweat while wearing the rug. When a horse is insulated by wearing a rug, the danger is overheating, this can lead to heat stress from poor dissipation and poor evaporation of heat at the skin surface.

In the case of two of the horses used in this study, (Audi and Charles) it was observed at the beginning of the study (baseline stage), that both subjects had very clear unusual 'thermal pattern asymmetries' as well as 'absolute temperature asymmetries' in the left side sacroiliac region spreading to the left hindquarter when compared to the same region of the opposite side (right side). This temperature asymmetry was due to an inflammatory process relating to injury in this region. On removal of the Protechmasta IR rug at the final stage of the study we observed not only a visible reduction in thermal pattern asymmetry but also a reduction in absolute temperature measurements of 1.4 degree Celsius in Audi's case and 1.7 degree Celsius in Charles case. This very significant result clearly provides evidence that the benefits of the Protechmasta not only maintains and stabilises temperature but also benefits the equine at a cellular level, encouraging improved circulation resulting in a reduction of inflammation.

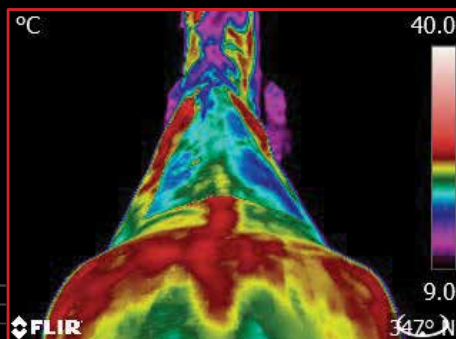
'In all the horses, there was an even and maintained regulation of temperature in keeping with an optimum healthy function.'

Protechmasta

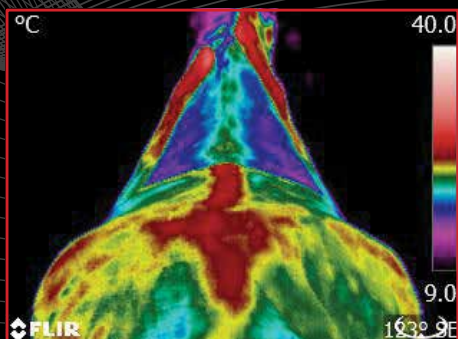
Testing - Infrared Rug

Key Findings

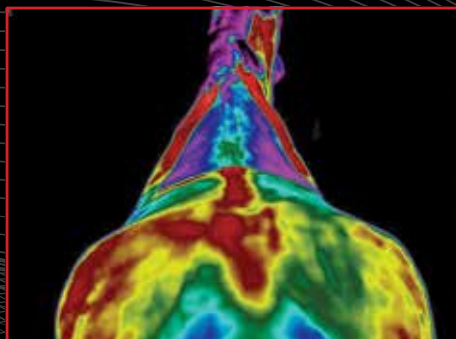
Thermal imaging test results
for equine subject 1 – Audi



Audi - Baseline scan showing thermal asymmetry in the left side sacroiliac region spreading to the left hindquarter



Audi - After 30 minutes already showing a significant reduction in thermal asymmetry and improved circulation



Audi - After 180 minutes showing a visible reduction in thermal asymmetry and absolute temperature by 1.4 degrees

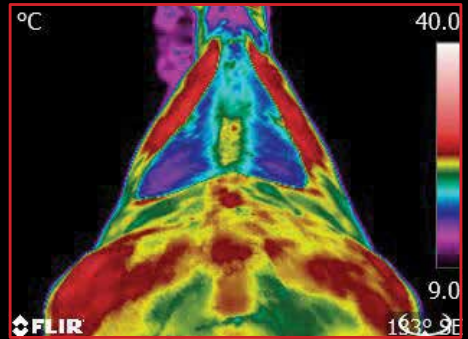
‘This very significant result clearly provides evidence that the benefits of the Protechmasta not only maintains and stabilises temperature but also benefits the equine at a cellular level, **encouraging improved circulation** resulting in a reduction of inflammation.’

Protechmasta

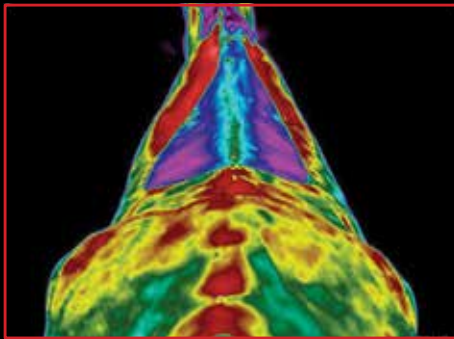
Testing - Infrared Rug

Key Findings

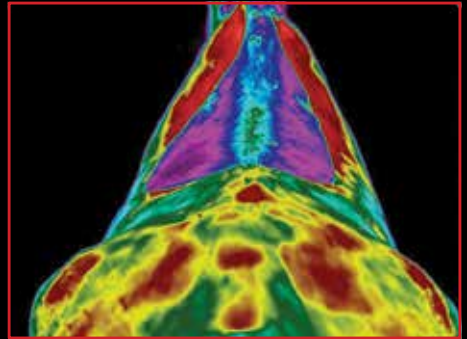
Thermal imaging test results
for equine subject 2 – **Charles**



Charles - Baseline scan showing thermal asymmetry in the left side sacroiliac region spreading to the left hindquarter



Charles - After 30 minutes already showing a significant reduction in thermal asymmetry and improved circulation



Charles - After 180 minutes showing a visible reduction in thermal asymmetry and absolute temperature by 1.7 degrees

‘...at the final stage of the study we observed not only a visible **reduction in thermal pattern** asymmetry but also a reduction in absolute temperature measurements of 1.4 degree Celsius in Audi’s case and 1.7 degree Celsius in Charles case.’

Protechmasta

Testing - Infrared Leg Wraps Key Findings

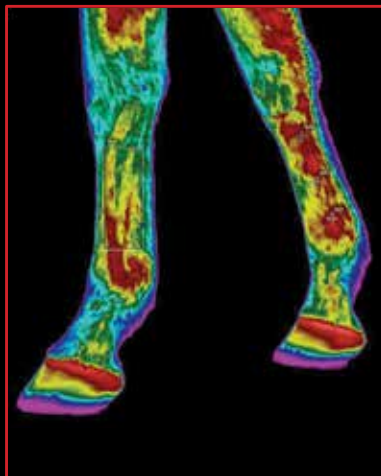
The warming up period can be encouraged using Far Infrared Therapy which has been scientifically proven to provide radiant heat which encourages blood flow, which in turn favourably warms up tendons, ligaments and other structure and post-performance encourages the removal of toxin build up. The Protechmasta IR leg wraps contains a special ceramic powder that is blended with the yarns of the lining fabric and impregnated with Far InfraRed (FIR) emitting nanoparticles designed to deliver thermal radiation effects.

Degeneration is normally the first phase to tendon and ligament injury and unlike clinical injury does not provoke a repair process. It is therefore important that management of the distal limb is carefully considered for prevention of injuries and to maximise performance longevity and a crucial part of the management process is the warming up of these structures pre-exercise and the reduction of lactic acid build up post exercise.

During a study conducted by scientist Sandie Chambers of Equitherm, all temperature measurements showed some level of increasing from baseline to the 60 minute temporal stage, at the 60 minute stage all subjects MAST's (mean average surface temperature) stabilised before two of the subjects MAST's reducing by 1 degree at the 120 minute stage.



Diablo - Baseline scan prior to wearing leg wraps



Diablo - 180 minute scan showing increase in temperature and therefore blood flow

‘The recorded decrease in temperature indicates the leg wraps ability to absorb heat and emit heat allowing a more stable and regulated temperature effect, therefore preventing the horse’s legs from heating up beyond that of a safe level.’



Protechmasta The Effects

**Clinically proven
to regulate
temperature and
increase blood flow
to have beneficial
effects on the
horse for optimal
performance**

- ✓ **Boosts metabolism to improve the absorption and transportation of nutrients for better bodily function**
- ✓ **Detoxifies and encourages the release of waste products to prevent injury**
- ✓ **Boosts the immune system with improved circulation of blood cells to provide nourishment and help in fighting diseases, stabilise temperature and pH, and maintain homeostasis**
- ✓ **Improves suppleness with the heat generated from increased blood flow making connective tissue more flexible and ready for work**
- ✓ **Relieves fatigue by decreases joint stiffness, pain and muscle spasms making recovery times quicker**
- ✓ **Reduces inflammation and the build-up of fluid in tissues with the increased heat from blood flow**

Find out more at harryhall.com/protechmasta



More from the Protech**masta** family



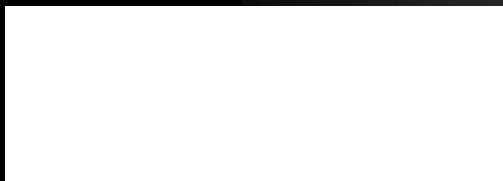
www.harryhall.com/woofmasta



Protechmasta

Protecting & Caring

Available at



Park View Mills, Wibsey Park Avenue, Wibsey, Bradford BD6 3SR United Kingdom.

E-mail: sales@harryhall.com

harryhall.com/protechmasta