

Keratex Hoof Hardener



Selected by the Horse-Journal as "Editor's Choice" and "Product of the Year".

"It penetrates deeply then reacts with the hoof wall keratin to form additional links/bridges. It binds to protein to stiffen the keratin coil, helping prevent brittleness and cracks... it lasts and gets the job done." ~ Horse Journal Product of the Year.

Keratex Hoof Hardener

Strengthens, Hardens & Protects Hooves and Soles, and Manages Moisture

- Keratex Hoof Hardener strengthens weak, worn and cracked hooves by improving the molecular structure of the horn itself. Equally effective in wet & dry conditions.
- Prevents the horn from taking in excess moisture, making it resistant to softening and weakening in wet conditions. This results in a reduction in shoe loss and abscesses.

- Keratex Hoof Hardener is not an oil or resin layer and does not seal the hoof. Hoof Hardener will ensure the treated hoof is able to breathe naturally.
- Moisture balance is properly maintained.
- Should also be applied to the sole of the hoof to prevent bruising.

Keratex Hoof Hardener is a gentle acting formulation which forms additional intermolecular bonds between molecules of keratin through the process of cross-linking. Keratin is the main protein constituent of horn and is best described as the building block of the horn structure.

The cross-linking process results in additional atoms being distributed between the keratin molecules to produce a tougher and stronger horn structure.

Many other products claim to strengthen the hoof, but usually this entails a superficial layer of resin or varnish. Keratex Hoof Hardener works by actually improving the structure of the horn itself.

Since Hoof Hardener is neither a varnish or resin layer, it leaves no visible coating. Therefore the treated hoof is able to breathe and function naturally.

Water and ammonia damage the structure of the keratin molecule and how they interact with each other. This is, and always will be, a major problem for horse owners. The scientists at Keratex spent many years researching ways to rebuild the damaged molecular structure of hoof horn.

The result of this research was Keratex Hoof Hardener. Because of its unique nature, Keratex was granted a Patent. Keratex Hoof Hardener is the only truly effective hoof hardener. No other manufacturers are allowed to use the technology developed by Keratex.

The horn which forms the visible part of the hoof capsule is dead. It has no blood supply and therefore cannot be regenerated or improved by feed supplements or ordinary inactive conditioners. High quality feed supplements will improve the quality of new horn being produced at the coronary band and will improve the rate of growth. Unfortunately, no supplement will influence the quality of existing horn. If it is cracked, it must grow out. It cannot mend itself.

However, with the active formulation of Keratex Hoof Hardener, the quality of existing horn can be improved chemically within just a few days. Obviously, cracks will not disappear, but the horn around them will be strengthened to resist further movement so they can grow out. Once treated, the horn will also be better able to support nails so shoes stay on better.

Because of the hardening and strengthening effect of Keratex Hoof Hardener, it is superb for use on shod and unshod horses.

A little more on the technical side.

Although the unique formula for Keratex Hoof Hardener is protected under patent laws, the following information is provided to help explain why Keratex Hoof Hardener is materially different from all other products and why it has earned unparalleled worldwide success with farriers, veterinarians and horse enthusiasts for more than a decade.

Farriers have used formalin for many years to harden horses' hooves. The action of formaldehyde on keratin is well known to be a simple cross-linking action. Methylene or bis-thioether groups are added by condensation reactions with reactive amino, sulphhydryl or other groups on the keratin helix to form additional linkages to reinforce the rather labile disulphide links which occur naturally. It is quite incorrect to say that formalin hardens horn by removing water. Rather, it strengthens it by introducing these extra inter and intra-molecular links.

However, formaldehyde in its simple aldehyde state reacts too quickly. It case-hardens the hoof, thus preventing the entry of formalin to deeper layers, and also creating surface brittleness. Keratex Hoof Hardener contains formalin. It also contains another substance which effectively slows down the reactivity of the -CHO group, thus giving time for the aldehyde to penetrate the outer layers of horn. This is facilitated by the presence of yet another compound in Keratex Hoof Hardener which temporarily modifies the hydrogen bonds which join the helix coils internally and externally. Having done this, the compound then evaporates, leaving the hydrogen bonds to re-make once the aldehyde is in place.

Keratex Hoof Hardener also contains an inorganic complexing agent. One end of the molecule of this agent co-ordinates onto a nitrogen atom in the keratin molecule. The other end modifies the keratin helix, thus effectively adding an aggregate to stiffen the horn. This process resembles the consolidating effect of the melanin in hoof horn. The melanin also acts as an aggregate and confers extra strength.

Finally, Keratex Hoof Hardener contains a plasticiser to stop the horn from becoming brittle, and it also contains a powerful disinfectant to assist in maintaining general hoof health.

User Notes - Sold in 250 ml plastic bottles. Includes separate hoof brush for application.

Apply to lower half of hoof and sole, avoiding coronary band and frog.

Use daily for one week then twice weekly for general hoof maintenance.

If the hoof has been treated with any oils or greases over the past three months, degrease the hoof thoroughly with acetone before applying Keratex Hoof Hardener. Do not use any oils or greases while using Keratex Hoof Hardener.

Helpful hint: Pour from the bottle into the cap and work out of it to avoid getting dirt back in the bottle or spilling it.