

# DIAMOND

NON-STICK CERAMIC COATING  
FOR DOMESTIC IRON SOLE PLATES



# What is Diamond?

DIAMOND non-stick ceramic coating system has been specially developed for use as a sole plate for domestic steam irons.

DIAMOND is a double layer system that utilises the latest nano-technology thermally bonding the non-stick ceramic coating to the aluminium ensuring the best performance from the metal and coating. These two layers in combination offer the unique blend of smooth glide and exceptional wear resistance.

When you consider the many benefits for both consumer and manufacturer the decision to go with DIAMOND is a valuable and powerful addition to your product offering.



# about us

DIAMOND™ is a trade mark of Cooper Coated Coil and is the brand given to the specially developed coating system for domestic steam iron sole plates.

Based in Wolverhampton, UK, Cooper Coated Coil is a niche coil coating company specialising in the application of high temperature coatings to metal coils. The coating application is achieved by employing the coil coating process, a particularly efficient, cost effective and environmentally friendly production method.

The result is a pre-coated metal able to withstand further manufacturing processes whilst retaining function and looks.

Our business provides solutions which benefit our customers from both a technical and economic perspective and our success emerges from a commitment towards customer focus, quality, experience, partnership and trust.

Working with our partners in metals and coatings for more than 50 years means that we have acquired the experience and know-how. Aligned with our understanding of industrial processes, manufacturing techniques, product end uses, and commercial value, enables us to develop new solutions for specific situations. DIAMOND non-stick ceramic coating for iron-sole plates is a living and breathing example!

# unique coating system

The 1st coating layer provides an inert crystalline structure containing ceramic particles capable of withstanding extreme abrasion. This is over-coated with another layer containing a high concentration of fluropolymer to provide the non-stick performance. These two layers in combination offer the unique blend of smooth glide and exceptional wear resistance. The method of production achieves everything in a single manufacturing cycle capable of delivering consistent quality time after time

## unique benefits

### consumer benefits

DIAMOND non-stick ceramic coating for iron sole-plates provides a unique blend of features and benefits of value to the consumer.

These range from the use of the latest coating technology giving smooth superior glide; the use of ceramic particles to provide strong wear resistance and the robust environmental process control to ensure that the product is made to the most modern and environmentally friendly standards.

### manufacturer benefits

When DIAMOND was being created as much consideration went into the benefits for the steam iron manufacturer as for the consumer.

It was critical that DIAMOND was able to fit easily into existing process techniques whilst being able to deliver quality, environmental and manufacturing cycle benefits.

As a pre-coated system, the material can fit into existing processes and tooling with the minimum of investment or disruption.

Manageable order quantities and choice of colour options and further enhancements.

# consumer benefits

## unique non-stick ceramic system

Every component of the DIAMOND system has a part to play. Central and unique to DIAMOND is the double layer coating system.

The 1st coating layer provides an inert crystalline structure containing ceramic particles capable of withstanding extreme abrasion.

The 2nd layer provides the ultra smooth finish and the non-stick performance that lifts from the ordinary to the exceptional.

## superior smooth coating

The smoothness of the surface is considered to be a highly marketable attribute providing a strong impression at point of sale.

The DIAMOND specification puts together a unique combination of precision levelled Aluminium coated with a double layer ceramic non-stick applied by accurate coil coat technology.

Smoothness readings from Industry leading non-stick irons were taken and compared to the DIAMOND non-stick ceramic coating surface. The results were staggering.

## excellent durability

DIAMOND gives a much superior wear resistance than existing non-stick systems.

This comes from the ceramically re-inforced base coat and means the sole-plate is more resistant to zips, buttons and rough material like denim.

## even heat distribution

Superb heat conductivity is 3x better than stainless steel allowing for faster start up times.

Even heat distribution across the whole plate area is more energy efficient and avoids unwanted "hot-spots" particularly important when ironing delicate fabrics.

## choice of colours

Why does a non-stick sole plate always have to be Black or dark Grey? With DIAMOND there is always a choice that adds to the look of the iron and can re-inforce brand identity.

## environmentally friendly

We use aluminium as it is the most recycled metal in use made by clean, hydro-electric non-carbon energy sources. It is infinitely recyclable because its essential properties remain unchanged even after multiple recycling loops.

The coating application itself is the greenest available utilising 99% of the coating – twice as good as a sprayed on non-stick iron.

# manufacturer benefits

## no additional investment

DIAMOND is supplied pre-coated on 0.40mm Aluminium substrate as standard. It can be processed using the same tooling as Stainless Steel without any further tooling investment. The clearance gap between the cast base and the iron sole plate is the same as with stainless steel and the connection is just as secure.

## 500 hour steam test

DIAMOND has been formulated and tested to exceed a 500 hour steam test.

DIAMOND is a fully approved system having passed the life cycle tests by a number of OEM's and Far East manufacturers.

## shorten manufacturing cycle

DIAMOND is pre-coated and does away with the need to use a spray shop. This will reduce the space required and shorten the manufacturing cycle. Shorter times means lower inventory

Additionally, no paint rectification is required as DIAMOND is supplied fully protected with a removeable polymer film.

## RoHS & WEEE approved

The raw materials and process for DIAMOND are free from heavy metals – Cadmium, Chromium VI, Lead & Mercury and substances in accordance with International directives and regulations.

DIAMOND is officially certified as RoHS & WEEE compliant.

## environmental benefit

A typical non-stick iron sole-plate is spray coated and likely to only utilise 50% of the paint used.

The rest is lost in overspray – where does this go and how is handled?

Increasing environmental legislation is placing a greater financial burden on companies that impacts on the finished product.

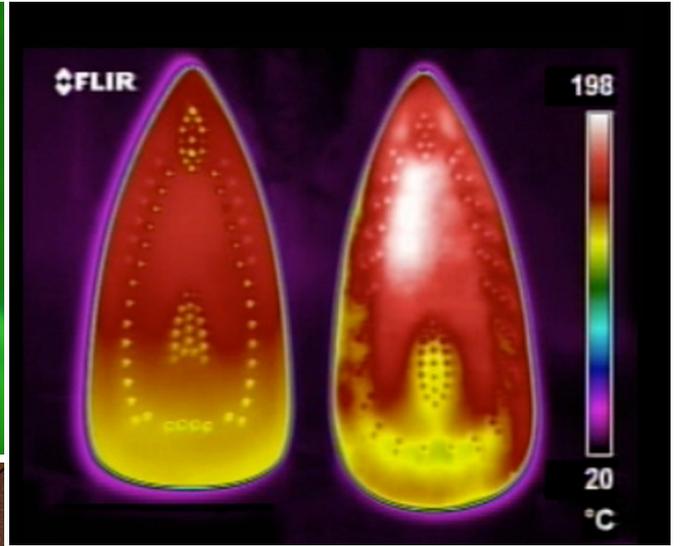
DIAMOND is applied under strictly controlled conditions on state-of-the-art equipment utilising 98% of the coating used that adds to the quality of the product and the environment.

## supply

DIAMOND is available exclusively from CCC (Cooper Coated Coil)

Local area representation in the Far East provides product training and logistical support.

DIAMOND is available for supply in both sheet and coil form for delivery from the UK to the Iron manufacturer in the Far East and Asia.



# technology centre

Technology is at the core of the development of DIAMOND.

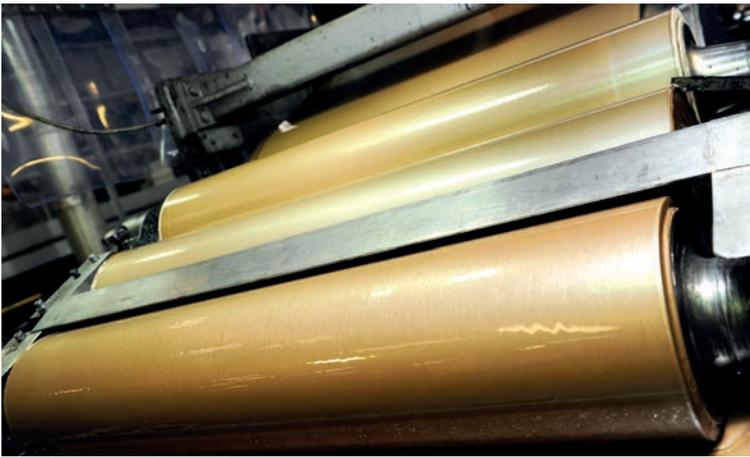
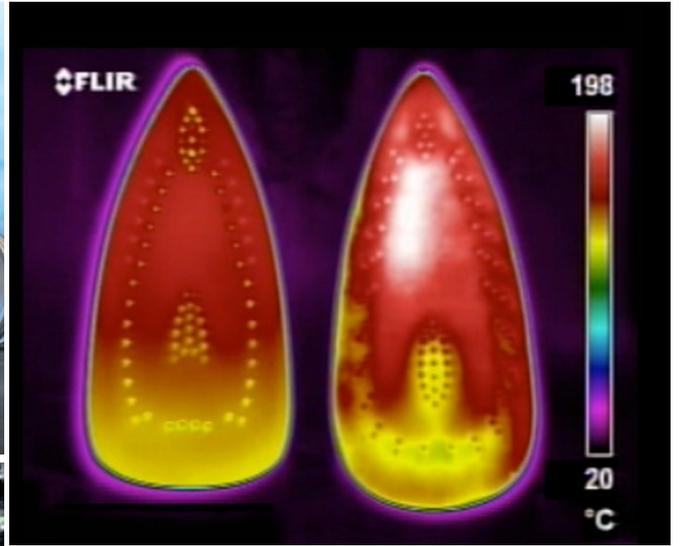
Working in close partnership with suppliers and customers, we continually strive for and test the best materials & processes to deliver the unique DIAMOND specification.

# our testing centre

The development of DIAMOND non-stick ceramic coating for iron sole plates has been the result of technologically advanced coatings applied to precision rolled metal by modern process techniques.

Every aspect of the specification has been considered from the selection of the metal and the adhesion of the coating to the glide and durability of the finished surface.

Robust process controls & test procedures measure the coating thickness, thermal performance, abrasion resistance and the co-efficient of friction that provides product excellence time after time



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