

Reducing our products' environmental footprint

We proactively look for ways to reduce the environmental footprint of our products. We do not use chemicals on the List of Substances of Very High Concern (SVHC) and are in full compliance with the EU's Registration, Evaluation, Authorisation and Restriction of Chemicals legislation (REACH).

Sustainable Innovation

We see sustainable innovation as smart and profitable. Here are some of the advancements we are making:

- developing new low-energy technologies – this decreases the amount

of energy needed to manufacture our coated abrasives.

- switching to a non-heavy metal colouring agent – this reduces the amount of heavy metal in our products.

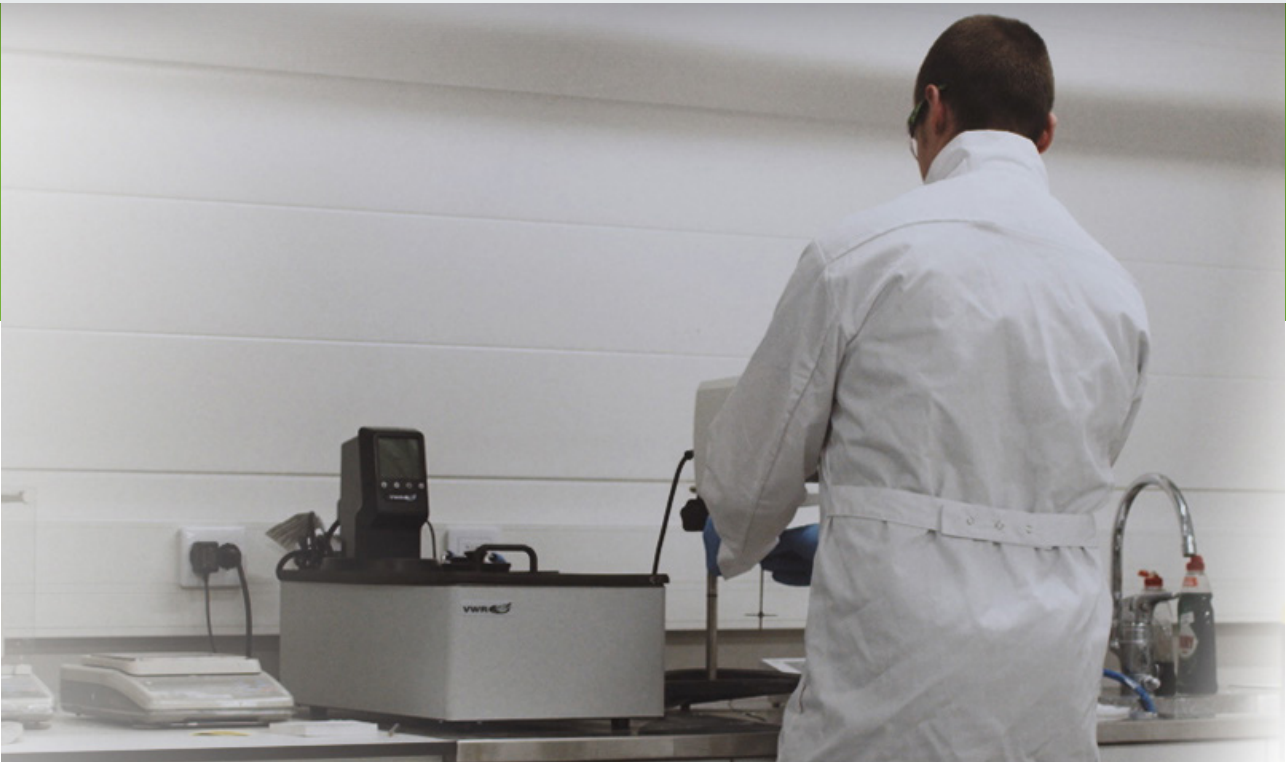
- improving the handling and processing of waste resin – this ensures better health and safety for our workforce and decreases the chance of disposal hazards.

- innovating new catalyst technology – this makes our thermal machine lines more efficient, reducing the energy consumption needed to make our products.

- designing efficient product transport routes – this reduces our carbon footprint.

In order to be a pioneering company in our industry and to continue offering our customers innovative, high-quality sanding technology solutions, product development has a key role in our operations. The focus of product development is to create comprehensive solutions that not only solve the customer's everyday challenges but also address occupational safety and working environment concerns.

Clean Proactivity





Low environmental impact with Mirka Power tools

Mirka Power Tools have been on the front line regarding compliance with environmental laws and regulations for many years, but things ramped up in 2016, with a separate team within the Power tools unit focusing on compliance. The key focus of the team is making sure that Mirka Power tools have as little impact on the environment as possible.

It is also becoming increasingly clear that customers have become more environmentally conscious, and the company has been receiving more and more requests for compliance certificates and documentation.

“For example, the German market has for many years focused on recycling, and there are often inquiries from there regarding the recyclability of Mirka sanders,” explains Compliance Manager **Annika Stenmark**.

Whenever there is suspicion of non-compliance the product in question is sent to an external independent laboratory for testing. There is also continuous internal auditing of components used in production, their supply chain, and other aspects to ensure that no electronic components contain conflict minerals. Development and manufacture of power

tools are controlled by five EU directives:

- Restriction of Hazardous Substances (RoHS)
- Machinery Directive (MD)
- Radio Equipment Directive (RED)
- Registration, Evaluation, Authorization and restriction of Chemicals (REACH)
- Waste Electrical and Electronic Equipment (WEEE)

Besides those, there are also product-specific standards that apply. Compliance is declared in the user’s manual of all machines, which is compulsory for Mirka sanders to receive CE certification.

Digital tools ensure healthier work conditions

The possibility to monitor health and safety at work took a leap forward with the launch of the myMirka® App. One aspect is the possibility to monitor vibration levels and exposure to, for example, prevent white-finger syndrome.

By connecting a Mirka electric sander to the app via Bluetooth* the user can monitor vibration levels in both real-time and

over a longer period**. With the myMirka Dashboard, which visualizes the vibration monitoring collected through the myMirka App, workplace conditions can easily be followed up and analysed and ergonomics are significantly improved.

Besides vibration, the app can also measure energy consumption, workloads, and speed when sanding. There is also a feature

that monitors the temperature status of the machine motor and motor drive; if any of these show signs of overheating, the machine will automatically switch to safety-mode. With this, the lifetime of the tool is increased and the carbon footprint reduced.

The customer's needs in focus for Mirka Power tools

The Mirka® CEROS was released ten years ago to revolutionise the market. The design was based around the objective of developing an electric sander that was as light, small and effective as the pneumatic tools that were far more common at the time. This required the implementation of new brushless motor technology and close cooperation with end customers and the design agency.

"The end result is history, CEROS, and its successor, the Mirka® DEROS, are still the best electric random orbital sanders in the world, which many have attempted to copy with little success," explains Unit Manager **Veli-Pekka Västi** of the Power tools unit.

By switching from pneumatic tools to electric ones, you can save a significant amount of energy. For example, in the case of the Mirka DEROS, this means up to 90% less electricity consumption than that of an equivalent pneumatic tool. The trend is moving increasingly towards electric and battery-operated devices, and Mirka is working actively on developing

new solutions to replace pneumatic machinery for the automotive manufacturing industry.

The design process for a new tool is based on the customer's needs, with ergonomics as a key factor. At first, the product is tested internally, but end customers are also an intrinsic part of the design work; they are actively involved in testing the prototypes, and they provide invaluable feedback when it comes to developing the product to be the best it can be. In terms of ergonomics, we've received nothing but positive feedback on the finished products!

Chief Engineer **Caj Nordström** has been at the forefront of Mirka's product development in terms of tools, and his uncompromising stance on ergonomics and balance has rubbed off on the new designers too. The designers are motivated by the thought of healthy and happy end users who can do their work with the best possible tools. In addition to Mirka's electric tools being light, reducing vibration has also been a key area of focus, and

daily vibration exposure can be measured using the MyMirka app. Dust-free work is another key element of the products' ergonomics, as users need to be able to work without breathing dust into their lungs. The combined effect of all these factors makes working with Mirka tools a far more pleasant experience for the workers, while also keeping managers happy by reducing absences due to illness.

"In spring 2018 the lightest long-neck sander on the market, the Mirka® LEROS, was launched. The product has been very well received," as Veli-Pekka Västi explains. Customers have told us how happy they are not only with its lightness and good balance, but also with how pleasant it is to use, thanks to the flexibly maneuvering oscillating head. "Helping customers is what motivates me. It's great to be involved in the development of unique new products that make the lives of end customers that bit easier and healthier," concludes Veli-Pekka.



Unit Manager Veli-Pekka Västi, Power tools.

Sustainable abrasives

When aiming for the perfect finish, you are never satisfied. There is always a hunger to explore and improve. This is at the heart of Mirka's R&D team, they are continuously breaking new ground and developing new solutions - pushing the frontier of what we can expect from an abrasive, sander or polish.

One example of Mirka leading the way is the invention of Abranet. With one genius idea - to use a net instead of paper for the abrasive - we revolutionized sanding.

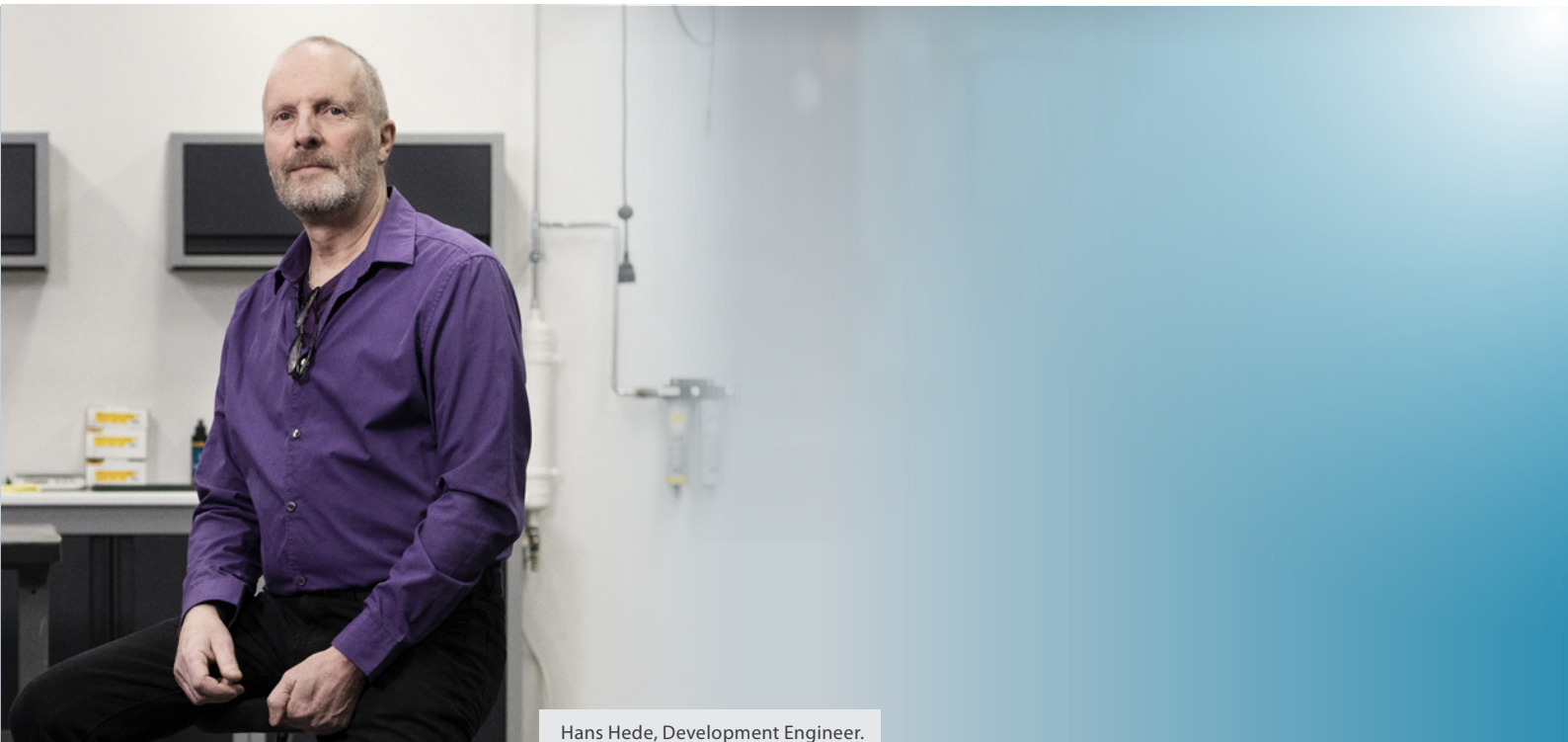
Our goal at Mirka is to create sustainable abrasives that provide you with the perfect finish while protecting both your health and the environ-

ment, whether during the manufacturing process or when you are using them. With our abrasives, you can work more effectively, since the dust-free solutions save you time, both when sanding and when cleaning afterwards. You can save money, water, and also the environment when there's less waste from the sanding process.

We have come a long way, and our products set new standards, but the Mirka Way is one of continuous improvement and always being one step ahead. Our ongoing fight for the environment is how we can make abrasives even more sustainable.

Meet Development Engineer **Hans Hede**, better known as Pukka, who has given us the groundbreaking Abranet, Abralon and Mirlon.

"You can always try to make abrasives more sustainable. They can be less wasteful, made of better raw material, eco-friendlier chemicals, and so on. It is possible to do all these things, but still, an abrasive is a wear-and-tear product, with a very short lifespan. My idea that I'm working on now is to prolong the lifetime of an abrasive with new technology."



Hans Hede, Development Engineer.

Water-based polishes – A better choice for both you and the environment

Every polish that Mirka produces is water-based. We sat down with Compliance Manager **Maria Sundqvist**, who develops our polishes, to find out why.

“Every one of the nine polishes that we produce are water-based. It’s a sustainable commitment from our side. Solvent-based products may be effective in the short run, but they are more damaging and harmful, both for the user and the environment.” Mirka’s polish production takes place in Jakobstad, Finland.

“It’s a close partnership with our production team and we always keep sustainability in mind when developing new polishes,” Maria tells us.

Kim Rönnholm, Mirka’s polish portfolio manager, notes that it is very important for customers that Mirka produces water-based polishes.

“If they aren’t water-based, they have a terrible smell. You need a mask when polishing. Our water-based polishes are very user-friendly.”

“It’s also easier to cheat and hide mistakes when using a solvent-based polish. With a solvent-based polish you’ll have a fast result, but it’ll wear off quickly and you need to re-do it very soon,” Kim explains. “With water-based polishes, you need to put a little bit more effort into the polishing, but you’ll have a better, longer-lasting result.”



Compliance Manager Maria Sundqvist.