

MIRKA

Performance, precision, and sustainability.

The Power of Best Available Technology

Our strengths to your advantage.

A closer look at the unique innovation behind Best Available Technology in abrasive production: superior performance, reduced emissions, and a production free from substances of concern.



We're pioneering the future of industry standards.

Curiosity is at the heart of everything we do. Since day one, we have chosen to challenge standards in the abrasive industry and strive for greater and greater ideas. We know that while the easiest path often gets you there faster, it rarely takes you as far — and that's why we always pursue the best solution, not the simplest.

20 years ago, we changed the abrasive industry with our dust-free technology, and today, we are doing it again. With the launch of our new Best Available Technology, we are redefining the limits of what responsible, high-performance technology can be.

What is BAT — and why does it matter?

BAT stands for Best Available Techniques – a key principle in EU environmental policy. It refers to the most effective and advanced methods for reducing environmental impact, while remaining technically and economically viable.

Our new technology is developed in line with BAT principles:

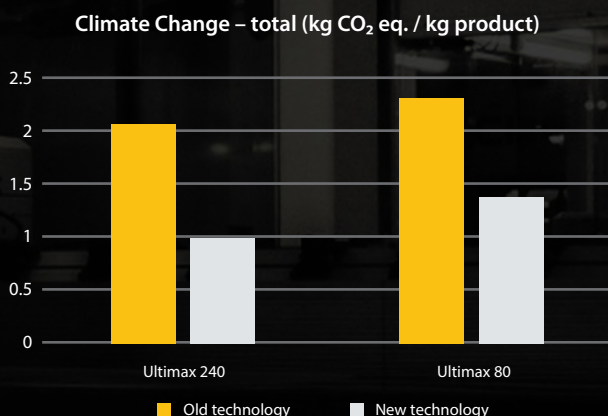
- Proven to significantly reduce environmental impact
- Designed for long-term compliance with upcoming regulations
- Built on real-world technical feasibility and industry best practices

While not formally BAT-verified, the development follows the same standards that define leading environmental performance across Europe.

Pioneering change — reducing emissions at the source.

This journey didn't start with a breakthrough — it started with a wave of challenges. Hazardous chemicals. Inefficient production processes. High energy use. We knew we had to face these issues head-on and find a better way forward. Product performance has always been the driving force behind our product development. So when we set out to reduce carbon emissions and remove formaldehyde from our processes, the real challenge was doing so without compromising what matters most. Years of development, testing, and determination finally led to a breakthrough that reshaped how we manufacture abrasives.

The result: a world-first curing technology that's formaldehyde-free and significantly more energy-efficient. Delivering precision-coated products with even higher performance, produced with lower CO₂ emissions. Traditional curing relies on energy-intensive ovens, often powered by fossil-based energy. Our new technology radically reduces the need for energy, speeds up production and minimizes waste. It's not just a technological upgrade — it's a shift in how we think about manufacturing. And it's exactly what the BAT Concept is all about: pioneering better industry standards through innovation.



The cradle to gate calculations for climate change, show the significant reduction of CO₂ emission when switching from the old conventional technology to the new BAT technology.



The benefits of BAT technology

BAT technology is a complete rethink of how product performance, precision, and safety come together — with reduced environmental impact. We break down how this innovative technology translates into concrete product improvements and what benefits it offers our customers.

 Technology benefits	 Product benefits	 User benefits
Precision coating	- Improved consistency in grain distribution - Ability to create patterned layouts, reducing dust even further - Optimized grain orientation for sharper cutting - Reduced clogging tendency - Increased product durability and extended lifespan	- Faster, more consistent material removal, improving process efficiency - Improved air quality - Higher surface quality with less need for rework - Fewer abrasive changes required, reducing downtime and consumable costs - More stable performance over time, supporting reliable production planning
Reduced CO ₂ emissions with our new energy-efficient curing technology	- Products with up to 54% lower CO₂ emissions, compared to products made with conventional methods.* - Lower energy classification	- Lowers emissions in your value chain - Supports climate reporting and CO₂ targets - Fits low-carbon procurement criteria
Free from substances of concern	Product recipes are free from substances of concern, including formaldehyde and isocyanates	- Healthier work environment improving air quality and safety - Meets occupational health and safety regulations such as REACH
Reduced material waste	- Significantly less production waste - Contributes to a reduced carbon footprint per product	- Helps meet internal goals for material efficiency and waste reduction - Strengthens value chain performance with lower input-to-output ratio
Digitally controlled technology	- Higher flexibility in product design - Increased adaptability - Enhanced quality thanks to earlier error detection	Increased flexibility to tailor unique product solutions for customer needs

All results are based on internal testing conducted under controlled conditions. Comparative data reflects differences between the new and conventional technologies.

* We are currently developing third-party verified Environmental Product Declarations (EPDs) for our coated abrasives. In the meantime, the calculations are based on preliminary cradle-to-gate climate change total data for Ultimex 240.

BAT Advantages

Half the emissions, double the performance.

We recognized that our production process was the main source of emissions. Determined to change this, we refused to accept any trade-off in product performance. In fact, we succeeded in reducing emissions while improving product performance even further. We began with the most energy-intensive stage: curing. This challenge sparked a cross-functional effort involving engineers, chemists, and production experts.

Together, we developed a new curing technology that significantly lowers energy consumption, reduces waste, and creates a more efficient way to manufacture high-performance products. As a result, we reduced product footprint by 54% (cradle-to-gate) and improved product performance by up to 44% — thanks to enhanced automation, more uniform grain distribution, and optimized grain orientation.

World-first technology

We are the only abrasive producer in the world to replace traditional, heat-based curing methods with a completely new technology that significantly reduces energy use.

Reduced CO₂ emissions

We set out to cut carbon emissions at the source. In internal tests, we have evaluated how the carbon footprint is reduced in the new production process compared to the old conventional technology during the manufacturing of Ultimix.

Thanks to our new technology, we have achieved up to 90% reduction in energy consumption, which is one of the contributors to an overall 54% reduction in product footprint. Other main drivers contributing to the lower footprint are improved process efficiency, less waste and optimized raw material usage.

Lower energy classification

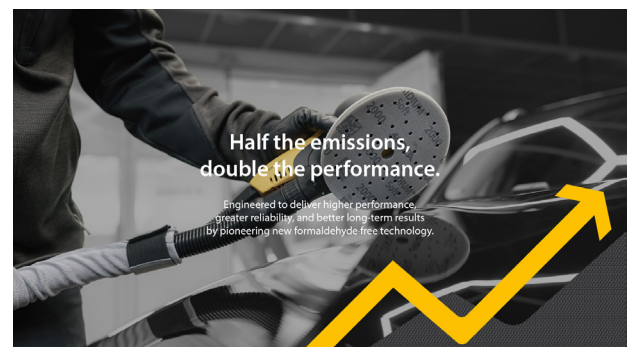
Thanks to our new curing technology, we've significantly reduced the energy demand in production. The result: products that no longer fall under the classification of energy-intensive manufacturing. It's a major step forward — not just in efficiency, but in reshaping how high-performance abrasives are made.

Improved product performance

In a market survey, 44% of users rated the overall performance as excellent or better compared to competitor products manufactured using conventional production technology.

To assess performance, we selected one of our most widely used product, Iridium, which is produced using the new technology, to understand how the performance is perceived.

Test users ranked the product's cutting performance, durability, scratch pattern, and loading resistance among its most outstanding advantages.



**This information
pertains mostly to these
industries:**

Collision repair

Industrial manufacturing

BAT Advantages

Safe is not only dust-free.

We changed the game with dust-free over 20 years ago, and we are only getting started. Safety is not just about what is visible, it's about all aspects of the product. Why would we settle for "safe enough" when we can eliminate harmful substances altogether in our products? With that mindset we asked ourselves: what more can we do?

With our new technology, we have taken a bold step forward: eliminating all substances of concern entirely. Products made with our new technology now meet safety standards that go beyond official requirements. By having eliminated substances of concern, such as formaldehyde and isocyanates, we have made work environments not just compliant but genuinely safer.

Advantages:

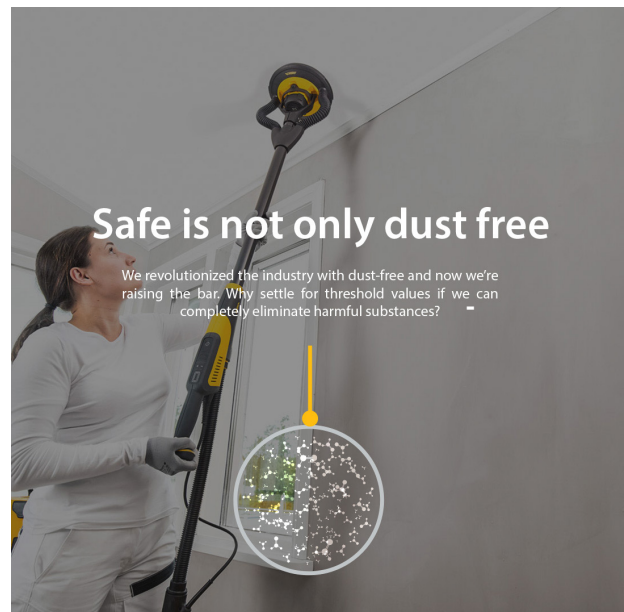
- Free from substances of concern, including formaldehyde and isocyanates
- Healthier work environment improving air quality and safety
- Ensures occupational health and safety compliance

Why is formaldehyde a problem, and why are we addressing it?

Formaldehyde is a chemical used in many materials, such as glues, coatings and wood-based products. The problem is that it can be released into indoor air, negatively affecting air quality and causing health issues like eye, nose, and throat irritation.

Long-term exposure to formaldehyde has also been linked to cancer. Because of this, formaldehyde is classified as a Category 1B carcinogen under the EU CLP Regulation (EC No 1272/2008).

To reduce health risks, the EU has set new limits on the amount of formaldehyde products can release. Starting in August 2026, most wood-based materials and furniture placed on the EU market must stay below 0.062 mg/ m³, while other products must stay below 0.080 mg/ m³ (EU Regulation 2023/1464).



**This information
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industries:**

Collision repair

Construction and decoration

BAT Advantages

Precision with every grain.

True innovation doesn't just improve results — it redefines how they're achieved. By reinventing our production process with the new technology we have enabled advanced precision coating, taking control down to the grain.

Each grain is strategically placed, with improved consistency in grain distribution and optimized grain orientation. This results in smoother and more even finishes, longer product life, and significantly better dust extraction — all while reducing the amount of

abrasive grains where they're not needed.

Through precision coating, we can create patterned abrasives with an innovative grain layout that guides sanding dust toward the extraction holes, improving dust extraction. This minimizes clogging, reduces downtime, and improves sanding efficiency and consistency.

Our new, innovative precision coating technology sets a new standard, and it's already making a difference where it matters most: on the surface.

How it works:

Controlled application

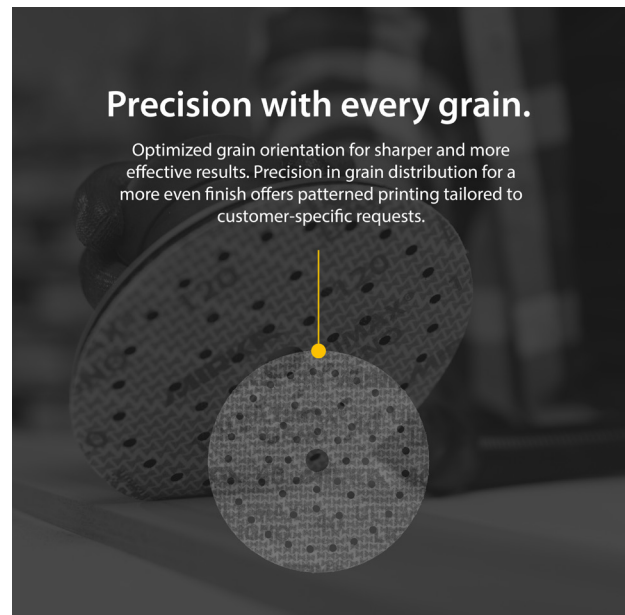
Through precision-coating, abrasive grains are applied with exact placement and orientation. Reducing waste and making the abrasives more effective.

Patterned layouts

Precision-coating enables making patterned layouts, placing each grain in a strategically patterned layout.

Reduced dust and clogging

With an innovative layout dust is guided more efficiently towards the extraction holes. This improves dust removal, reduces clogging tendency, keeps the surface cleaner and increases product durability.



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Industrial manufacturing

BAT Advantages

Key advantages by industry

Our breakthrough technology delivers a range of benefits — but what matters most depends on your industry. Here, you can explore the advantages most relevant to your field. For some, the key value lies in lower emissions; for others, it's enhanced safety or long-term performance.

We've identified three main customer groups where our BAT concept brings distinct advantages: major players in collision repair, industrial manufacturers, and construction and decoration companies.

Working within collisions repair?



Gain greater control over time, cost, and quality in demanding repair processes. This solution helps streamline operations and reduce environmental impact.

- Faster and more consistent material removal for improved process efficiency
- Higher surface quality with less need for rework
- Fewer abrasive changes reduce downtime and material use
- Contributes to lower emissions across your value chain (Scope 1–3)
- Supports climate reporting and CO₂ reduction targets (e.g. Scope 3)
- Meets criteria for low-carbon procurement frameworks
- Complies with occupational health and safety regulations (e.g. REACH)
- Aligns with internal targets for waste and material efficiency
- Improves input–output ratio across your production chain
- Offers tailored solutions to meet specific application needs

Working within automotive or industrial manufacturing?



Enhance productivity and product quality while lowering emissions and improving material efficiency. Designed for stable, long-term performance.

- Faster and more consistent material removal for improved process efficiency
- Higher surface quality with less need for rework
- Fewer abrasive changes reduce downtime and material use
- Stable performance over time supports reliable production planning
- Contributes to lower emissions across your value chain (Scope 1–3)
- Supports climate reporting and CO₂ reduction targets (e.g. Scope 3)
- Meets criteria for low-carbon procurement frameworks
- Complies with occupational health and safety regulations (e.g. REACH)
- Aligns with internal targets for waste and material efficiency
- Improves input–output ratio across your production chain
- Offers tailored solutions to meet specific application needs

Working within construction and decoration?



Create safer, cleaner work environments with materials that reduce dust and chemical exposure – and support healthier working conditions on site.

- Free from formaldehyde and isocyanates to minimize health risks
- Reduced chemical content supports safer handling and usage
- Effective dust extraction helps maintain cleaner air on site
- Higher surface quality with less need for rework
- Lower carbon footprint per unit compared to conventional alternatives
- Durable design reduces downtime and replacement frequency

We are always ready to talk innovative solutions.

Whether you have questions about our technology or want to explore how our products can bring value to your business — we are here. Reach out to connect with someone who understands your challenges and can help you find the right way forward.

Dedicated to the finish.

Contact us

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