



HERMES **FASTER** **BETTER** **SMARTER**

Grinding solutions tailored to your needs



for an
excellent finish

EXCELLENT PREPARED TO MARKET TRENDS

YOUR COST EFFICIENCY REQUIREMENTS
AND SURFACE QUALITY INCREASE CONSTANTLY -
WE AT HERMES HAVE THE KNOW-HOW AND
THE PORTFOLIO TO MEET GROWING DEMANDS.



PERFORMANCE, PERFECT FINISH AND INNOVATIONS

Certainly also important criteria for you, on the basis of which you select grinding tools for your process. How economical is the tool and what quality can I achieve with it? How does it fit into my production environment? We have the right answers and products for these questions, because your requirements are the focus of our research and development work.

INDIVIDUAL SOLUTIONS KEEPING UP WITH THE PULSE OF TIME

We provide that. Because thanks to decades of experience, we have a deep understanding of your processes. This enables us to develop solutions that are tailored to your specific applications, always keeping an eye on trends and market developments.

That's why we at Hermes are the right partner to serve your grinding requirements - today and even more so in the future.

LEARN MORE ABOUT OUR CAPABILITIES

Below you will get a foretaste of the inexhaustible possibilities our technologies and our product range offer you.

For detailed information and downloadable literature, please visit us at **hermes-abrasives.com**

You will find your direct contact person in the "Contact Finder" section.

PERFORMANCE – SHIFT PROCESS LIMITS, MAINTAIN QUALITY

You want to increase your productivity? We have the right abrasives for this in our portfolio. Whether the component is to be ground to size or prepared for final finishing, the challenge is to achieve the desired surface quality in less time – and to reduce costs at the same time.

For this purpose, we design our flexible and bonded high-performance abrasives exactly for your individual process. This means that we determine the optimum component mix of abrasive grain, bond and backing, or abrasive grain, bond and porosity.

OUR TOP PERFORMERS

REAL HIGH-PERFORMANCE REQUESTED?



CERBON CBN GRINDING WHEELS

with VICON high performance bond as the most powerful tool in the entire Hermes grinding wheel portfolio.

PERFORMANCE FOR WORKPIECES WITH PROFILE?



CERFINE SINTERED ALUMINIUM OXIDE WHEELS

are easy to dress and profile. In combination with the VITRA high performance bond, they stand for performance in profile or generating grinding.

POWER GRINDING WITH PROFIT?



CERAMIT® CR 176

for economical rough or repair grinding of stainless steel and high-alloy steels with optimum backing strength due to stable paper backing.

HIGH PERFORMANCE ON ROBOT GRINDING MACHINES?



CERAMIT® CR 476 J

developed for the high demands of use on robot grinding machines. A low-stretch, stable backing guarantees smooth belt running and the necessary belt stability.



**THANKS TO HERMES – YOUR PERFORMANCE
ADVANTAGE THAT PAYS OFF.**

**PRODUCTIVITY INCREASE IN THE REPAIR GRINDING OF
STAINLESS STEEL THICK PLATES**



Branch: Stainless steel service center

Abrasive tool: Ceramic grain long belt
CERAMIT® CR 176, grit 40

Machine: Johannsen long belt grinding machine

Workpiece: Stainless steel thick plates (1.4307)



3 times longer service life than competitive product

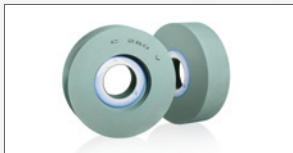
EXCELLENT FINISH – FROM VERY PRECISE TO ESPECIALLY FINE TO SUPERIOR

OUR TOP FINISHERS

Functional surfaces

Aesthetic surfaces

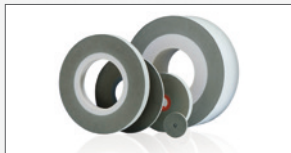
ROUGHNESSES OF LESS THAN 1 MICROMETER?



CERMIC FINE-GRAIN WHEELS

for fine grinding and high-precision applications with the most demanding dimensional tolerances and surface qualities.

HIGH-GLOSS FINISH?



MICROLITE POLISHING WHEELS

for achieving particularly high loading ratios when continuous generating gear polishing, polishing bearing seats, profiles and steering rods. Also for the realisation of mirrorlike surfaces.

THE SPECIAL FINISH?



HERMESIT® LONG- LASTING ABRASIVE BELTS


for the special "HERMESIT®-Finish" on stainless steel surfaces with a service life several times above average and consistent roughness values right to the end.

"BRUSH-FINISH" WITH ABRASIVES BELTS?



CORK POLISHING BELTS

for a "BRUSH-FINISH" with abrasive belts on stainless steel surfaces at working speeds which are significantly higher than those of the usual brushing rollers.



Whether for drive components, medical instruments, aerospace technology or household appliances and furniture – your workpieces are measured by the fulfillment of the respective quality requirements: For functional surfaces it is the unrestricted, lifelong functionality, for aesthetic surfaces it is the unique yet reproducible appearance.

In any case, the final result is an excellent finish. To achieve this, our experts select the right sanding tool for your process from our extensive portfolio. Thanks to years of experience, they will help you to integrate it optimally into your production environment.

THANKS TO HERMES – YOUR EXCELLENT FINISH.

A UNIQUE STAINLESS STEEL FINISH WITH HIGH ECONOMY



Branch: Stainless steel service center

Abrasive tool: Wide belt HERMESIT® RB 545 X, grit 400

Machine: Dry grinding with Timesavers 2-station grinding machine

Workpiece: Stainless steel coil (1.4307)



Optical "HERMESIT® finish" over 1,000 running meters with consistent roughness values from start to finish

HARD-FINE FINISHING OF GEARS WITH THE AIM OF A HIGH LOAD-BEARING RATIO



Branch: Gear industry

Abrasive tool: CERFINE/MICROLITE CG

Material: 20MnCr5

Machine: Gleason Genesis GX, $v_c = 63$ m/s



Roughness requirement $R_z < 1 \mu\text{m}$ fulfilled and loading ratio significantly increased

INNOVATION – FROM SMART GRINDING TOOLS TO EFFICIENT PRODUCT DESIGN

DIGITIZATION OF GRINDING PROCESSES

Digital smartness plays a decisive role in the automation, analysis and security of processes as well as in tool management to increase efficiency and productivity. Digital interfaces in the tool enable wireless data

exchange with the machine and ensure safe, simplified and fully monitored grinding processes.

We at Hermes already offer such state-of-the-art solutions for networked production.

LIGHTWEIGHT CORES: HIGH-PERFORMANCE HAS NEVER BEEN SO LIGHT

When using conventional high-performance superabrasives with a steel core, the enormous weight is a challenge for the entire periphery. These grinding wheels often weigh more than 100 kg, which causes longer set-up times and places greater demands on the machines. The bottom line is that this means a considerable factor for additional costs.

At Hermes, we rely on significantly lighter basic cores made of fibre composites, which even have better damping properties with comparable strength.

Your advantages: economic and ecological sustainability through significantly simplified handling of the grinding wheel, lower energy consumption and extended machine life.

OUR TOP INNOVATIONS

DIGITAL INTERFACES IN THE ABRASIVE TOOL?



CBNi grinding wheels

with integrated RFID chip for wireless data transfer between grinding tool and machine.



Abrasive belt with QR code

for easy access to product information.

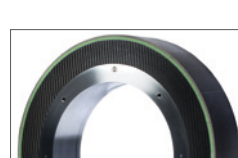
SENSITIVE ABRASIVE TOOLS?



Hermes Spike

Cooperation with promicron GmbH for wireless sensor systems in abrasive tools for optimal process monitoring and analysis.

HIGH-PERFORMANCE MADE EASY?



Hermes Light Core

CFRP lightweight cores for a weight reduction of up to 70% for better grinding properties and protection of the periphery.

THANKS TO HERMES – TODAY VISION, TOMORROW REALITY

AUTONOMOUS PRODUCTION OF THE FUTURE THANKS TO COMMUNICATING ABRASIVE TOOLS



Branch: all industries with automated production processes

Abrasive tool: coated and bonded abrasives with digital interface

Machine: Production lines with single or interlinked grinding machines



Automated data exchange between tool and machine - from recommendations for process setting variables to dimensions for collision and setup monitoring to data on the current tool status.

100% QUALITY CONTROL THROUGH PROCESS MONITORING VIA "SENSING" GRINDING TOOLS



Branch: all industries with high demands on quality control

Abrasive tool: bonded abrasives with integrated sensors in the tool flange

Machine: older and new machine tools with HSK interface



Wireless sensor systems in the immediate vicinity of the contact zone enable highly sensitive, continuous process monitoring. Irregularities and thus quality fluctuations are detected directly.



SEAM THE SUSTAINABILITY INITIATIVE

At Hermes, the topics of environmental protection and corporate responsibility have always shaped business policy. Today, we consider them more important than ever. This is why Hermes is a founding member of SEAM (Sustainable European Abrasive Manufacturers), the sustainability project of the European Abrasives Association. Within this framework, Hermes is continuously developing its sustainability standards in the three core areas of environment, society and economy. Further information on SEAM is available at www.seam.earth.



H.A.I. THE OPTIMIZATION INITIATIVE

Within the framework of the Hermes Abrasives Institute, we offer you optimization programmes that provide a customer-oriented combination of consulting services and individual training content.

This ranges from abrasives manuals, grinding process optimization and lean consulting to individual training so that theory becomes excellent practice.



HERMES **YOUR PARTNER AND EXPERT FOR EXCELLENT SURFACES**

WHO WE ARE

The aesthetic and functional finish of surfaces is our strength. That is why we are the first point of contact for a large number of users from a wide range of industries. Founded in Hamburg, Germany, we have grown out into the world. With our comprehensive portfolio of coated abrasives and precision bonded abrasives, we have been one of the world's leading manufacturers since 1927.

THE PERFECT SOLUTION FOR THEM – WHAT DRIVES US

At Hermes, we work with passion on tailor-made solutions that perfectly match your individual requirements. We are constantly expanding our in-depth knowledge of your processes, applications and associated challenges, because we want to be more than just your service provider: we want to be your partner.

SERVICE - WHAT CHARACTERIZES US

Wherever and whenever you need our support, we are there for you – internationally, with local contacts at our many locations. For our speed and flexibility we are appreciated by our customers all over the world.

TALK TO US

Optimization potential can even be found in processes that seem to run optimally. Let us work together to find out how we can get more out of it for you. You will find your contact person in the "Contact finder" section on **hermes-abrasives.com**



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Safety first

www.abrasivessafety.com