



PAGID

BRAKE SYSTEMS

**YOUR SAFETY PARTNER FOR
BRAKES AND SUCCESS**





PRODUCT AND SYSTEM

The very best for active braking safety

HELLA PAGID is one of the leading providers of brake systems in the free aftermarket. The company's first class expertise is based on decades of experience supplying original equipment to the automotive industry. Our competence, uncompromising quality and strong history of innovation justify our excellent reputation throughout the industry and beyond.

The scope and quality of our available products includes everything that could be described as "excellent braking technology", from flawless individual parts to the complete product range, and including both dry and hydraulic brake products.

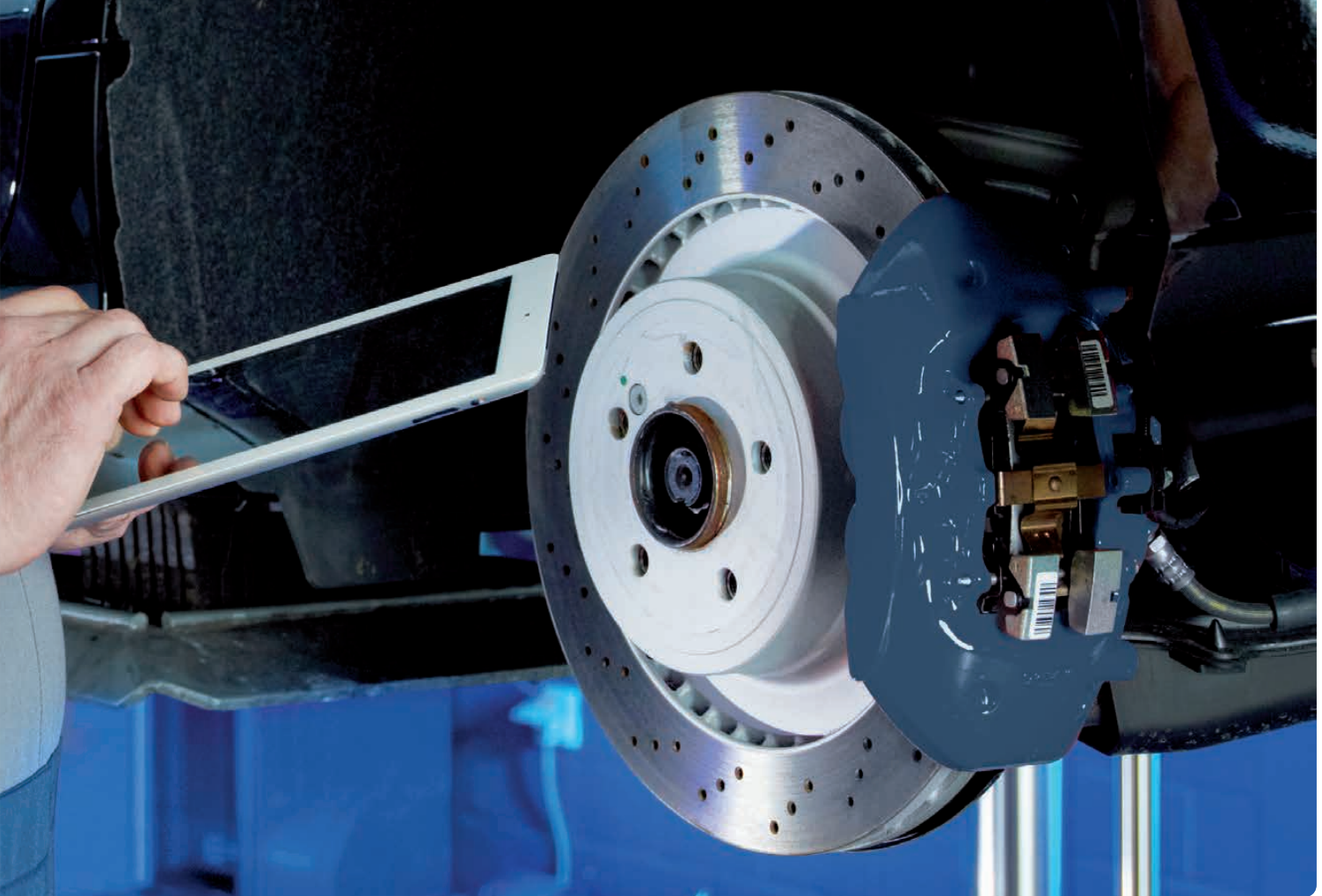
Our exceptional ability to match high expectations with reality is achieved with products that are in every way equal to the great challenges of modern traffic conditions. This is due to the fact that our research and development is grounded in Germany and our Centers for Excellence production plants (Germany, France, England, etc.) operate in accordance with the exceptional engineering specifications laid down in Germany.

HELLA PAGID therefore offers you:

- Competent production technology
- First class quality
- Technological progress
- Maximum possible innovation
- Highest standards, thanks to OE competence







QUALITY ASSURANCE

Progress through endurance testing.

The distinction between first class and mediocre is best expressed by the word “Quality”. For HELLA PAGID it goes without saying surpass the highest quality demands and comply with our clearly defined product characteristics. Safely powerful, tested and reliable; we adopt this guarantee of quality for all our products.

By using proven testing methods in our own research and development center we follow the rules published by vehicle and brake manufacturers and comply with standards and specifications that offer optimum safety and comfort. One example: bench tests for our OEM brake linings involving a total of 1,000 hours of testing and a distance of about 300,000 kilometres / nearly 200,000 miles ensure that innovations reach customers only at their very best.. Only when this hurdle has been cleared and all criteria have been met without difficulty are products released for series production.

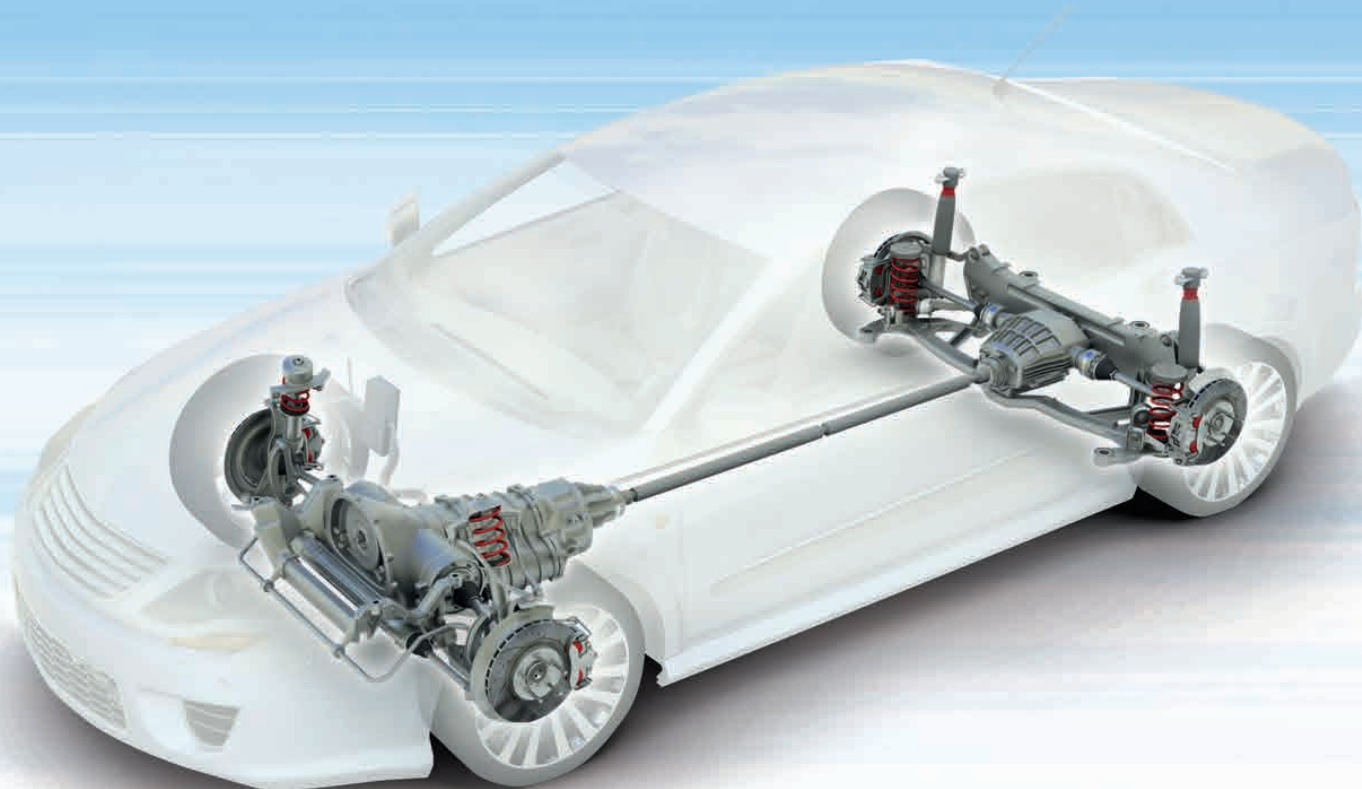
Safety and comfort are the primal instincts of enthusiasm, technical expertise and striving for perfection. So it is hardly surprising that our quality team does everything they can to make our products functionally safe and absolutely reliable. You can rely on and depend HELLA PAGID products.

PORTFOLIO

Product diversity to suit your requirements

Successful products are notable in that they offer the customer sustainable benefits. This requirement is optimally fulfilled by the HELLA PAGID product range, with its very wide diversity coupled with maximum safety, comfort and durability. So it is no surprise that almost 100% of existing European vehicles rely on our disc brake linings. Coupled with HELLA PAGID precision engineered brake rotors they make optimum friction partners from the small city vehicle to the sports car enthusiast.. For rear-wheel applications we offer brake shoes and drums that can cope with the most hair-raising situations. One unusual extra is the maximum time and cost saved by preassembled brake shoe kits. Lubricants, brake cleaning agents, warning contacts and various accessories round off the product spectrum and create a tailor-made program for our partners.

Nothing is more important than safety when it comes to the extensive topic of brakes. This is why we work intensively on constantly developing our product range and adapting it to the requirements of our customers. Just wait and see what else we come up with!





Wearing parts

- A total of more than 4,400 products
- Very high market coverage in OEM quality
- Fast inclusion of new products
- High quality data in and around our catalogs and technical documentation

Brake hydraulics

- A total of more than 3,400 products
- Good market coverage in OEM quality
- High quality data in and around our catalogs and technical documentation



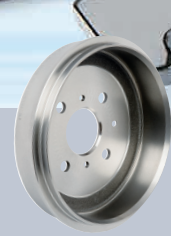
Brake Rotors

- over 1,500 brake rotors
- Coverage: >extensive offering for European vehicles.
- Mostly coated brake discs
PRO: non-rust and direct installation



Brake drums

- Over 200 brake drums
- Extraordinarily powerful
- Particularly long service life
- Made of high grade castings



Brake Calipers

- More than 1,650 brake calipers
- Replacement brake calipers as eco-friendly, cost-effective alternative
- General replacement of all safety-related elements and rubber parts



Brake master cylinders

- More than 525 master brake cylinders
- OE quality
- Latest models available
- Highly efficient and quick response time.



ACCESSORIES:

Brake fluid

- Extremely high boiling point
- Available as DOT 3/ DOT 4/ DOT 4 PRO (LV, low viscosity)/ DOT 5.1
- Exceeds DOT Requirements.



Brake cleaner

- Eliminates oil, grease, dirt and brake fluid without residue
- Cleans all components of brakes, clutches and gears, starters and alternators, carburetors, fuel pumps and motor parts
- Leaves no residues and is free of chlorinated solvents
- Binds brake dust

Brake lube

- Non-conducting
- Engineered for today's ABS systems
- Simplifies assembly

Warning contacts

- Over 220 articles
- Program development to harmonise with disc brake linings
- High heat resistance

Accessory sets

- Over 510 articles for disc and drum brakes
- Program development to harmonise with brake linings
- High fitting OE accuracy

Brake linings

- More than 1,400 brake linings
- Coverage: > Extensive for European vehicles.
- More than 35 different noise reduction techniques.



Brake shoes

- More than 400 brake shoes
- Coverage: > Extensive for European vehicles.
- More than 200 brake shoe kits



Wheel brake cylinders

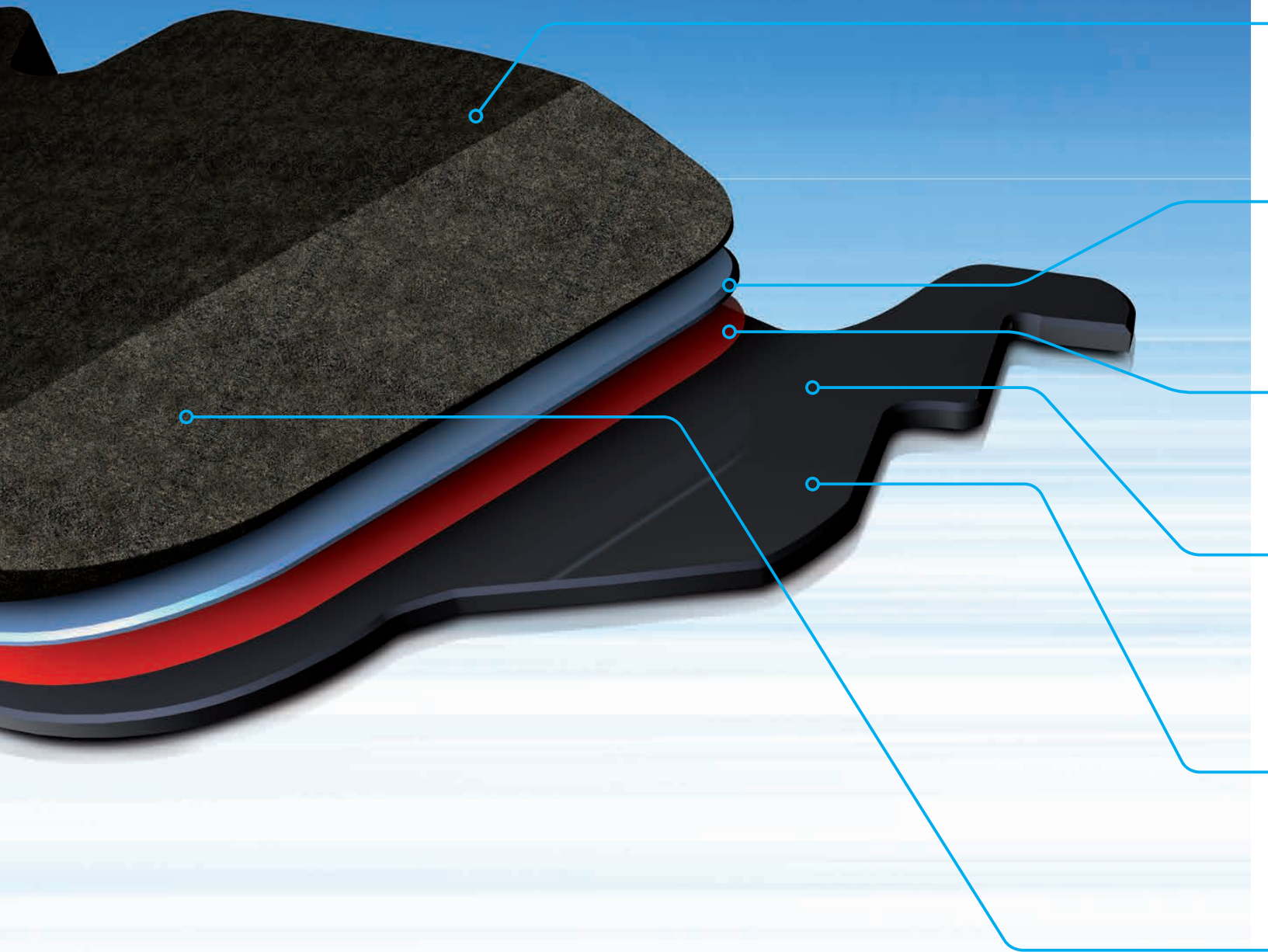
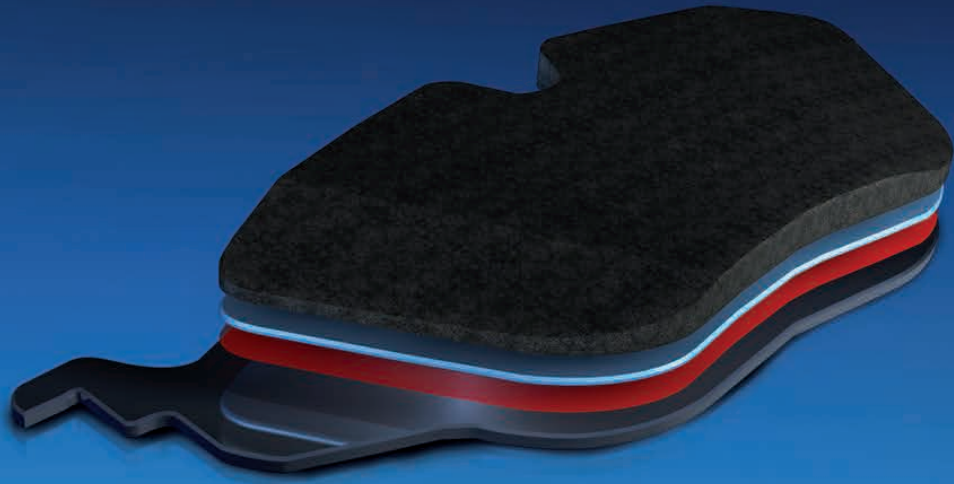
- More than 350 wheel brake cylinders
- Aluminium wheel cylinder: lighter, longer service life, more resistant to corrosion
- Wheel brake cylinders with or without integrated pressure controllers



Brake hoses

- More than 950 brake hoses
- Robust design and outstandingly shockproof
- Long service life
- Rugged hose fitting assemblies
- Exceeds SAEJ1401 specification





BRAKE LININGS

Layer by layer the highest quality

Innovative brake products are not only the result of intensive research and development studies, they also often result from information about braking, wear and comfort behaviour gathered during day-to-day use. This is why cooperative collaboration and constant dialog with the automotive industry are an absolute must for HELLA PAGID. At present our range of brake linings includes more than 1,400 articles made from 50 different formulations. They are all designed precisely for specific types of vehicle braking systems, engine performance, driving loads and braking characteristics and have demonstrated their marketability over up to 300,000 test kilometres / 200,000 testing miles before release to production.

01 FRICTION MATERIAL

The friction material has to fulfil extremely demanding temperatures and therefore needs to specifically application engineered for every use. As we said, the competitive advantage here is our 50 different formulations.

02 INTERMEDIATE LAYER

The intermediate layer is an engineering design feature with many benefits: it improves hardness, rotor behavior and comfort. It also reduces heat transfer, endures a high degree of shear protection while playing a critical role in noise abatement.

03 ADHESIVE

The specially developed adhesive permanently connects the lining material to the carrier plate to ensure excellent shear resistance.

04 CARRIER PLATE

Not one-size-fits-all but brake-specific designs in different grades of steel determine the quality of our carrier plates. In every case their quality, strength and tolerances fulfill the extremely high requirements of the particular braking system: the best conditions for trouble-free operation and a long service life.

05 POWDER COATING

The final touch for our brakes is the powder coating. It gives the finished product a spotless finish as well as reliable corrosion protection.

06 SECONDARY MEASURES

These measures and devices effect a further improvement in overall braking performance and driving comfort. They include, for example, the angled friction material and the attenuation plates attached to the carrier plate.

EXPERTISE

HELLA PAGID: the strong safety partner



HELLA PAGID realizes its ambition to be an all around supplier on a daily basis. Our broad product ranges enable us to be a partner to our customers, supplying all parts of the braking technology sector with excellent and compelling solutions. We certainly benefit from the trust our customers show us because of their previous excellent experience with associated companies in the areas of diagnostic and repair equipment (e.g. HELLA GUTMANN SOLUTIONS).

Our services are comprehensive and always fulfill the high standards that are characteristic of today's automotive market. On the basis of our justifiable assurance of quality plus our excellent braking technology, HELLA PAGID offers a range of services over its entire product range that meets current requirements in every respect.

Technical service as practiced partnership

Our services are specifically designed to strengthen the competitiveness of our partners through participation in HELLA PAGID's innovative development. Appropriate practical suggestions and new forward-looking information are provided by our special workshop concept, HELLA TechWorld, with its extensive technical knowledge base, practical training courses, cutting-edge technical information and expert hotline. For fast and effective product searches you can use our online "Brake Guide" portal at any time.

Professional sales promotion is a genuine sales accelerator

Our customers benefit from the strong sales support for dealers and workshops, e.g. in the form of professionally designed brochures and creative campaigns that are successful because of their high advertising impact.

Perfect logistics: progress in speed and reliability

Care, speed and accurate processing deadlines are core aspects of our outstanding logistics, as is the outstandingly high availability. HELLA PAGID provides its partners with the extraordinary possibilities of one of the world's largest commercial organizations.



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