

**| BRAKE PADS**



## THE BEST

# BRAKE PADS AROUND, "MADE IN EUROPE"

With over 1,300 products and 50 different friction lining recipes, the HELLA PAGID brake pad product line covers almost all vehicles sold in Europe. And in guaranteed top quality as we develop all of the brake pads ourselves and manufacture them in European factories only. In the process, HELLA PAGID far exceeds the performance specifications defined in the ECE R90 guidelines.

All products must prove that they are ready to be sold on the market by successfully undergoing a 300,000 kilometer endurance test run in the research and development center. One other aspect that is typical of HELLA PAGID is that all products are coordinated specifically for certain vehicle types, brake systems, engine outputs, driving loads and braking characteristics. It goes without saying that this could not be done without engaging in ongoing collaboration with the automotive industry.

## SAFETY FIRST

**When it comes to safety, we don't play around. Key fundamental data is obtained not only by conducting comprehensive research and development studies, but also leveraging the practical experience gained on a daily basis. In the process, focus is placed primarily on the braking, wear and comfort characteristics of the pads. In this context, the standards set forth by the automotive industry are of critical importance to us.**

### Our brake pad testing standards

- Compressibility test
- Heat transfer test
- AMS test
- Expansion tests
- Shear strength test
- Dyno test

### Braking distance matters

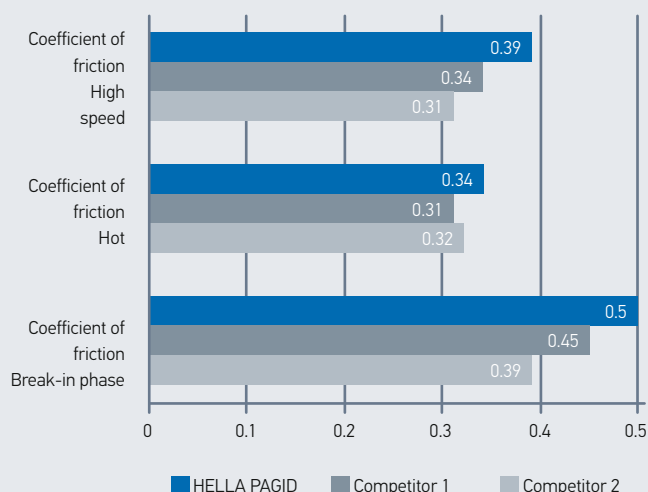
Just 3 meters can be all it takes to save a life. This is why we never let risk enter the equation. All products are thoroughly tested in accordance with the standards and requirement specifications defined by vehicle and brake manufacturers. In our own research and development center as well as on the road under real-world conditions.



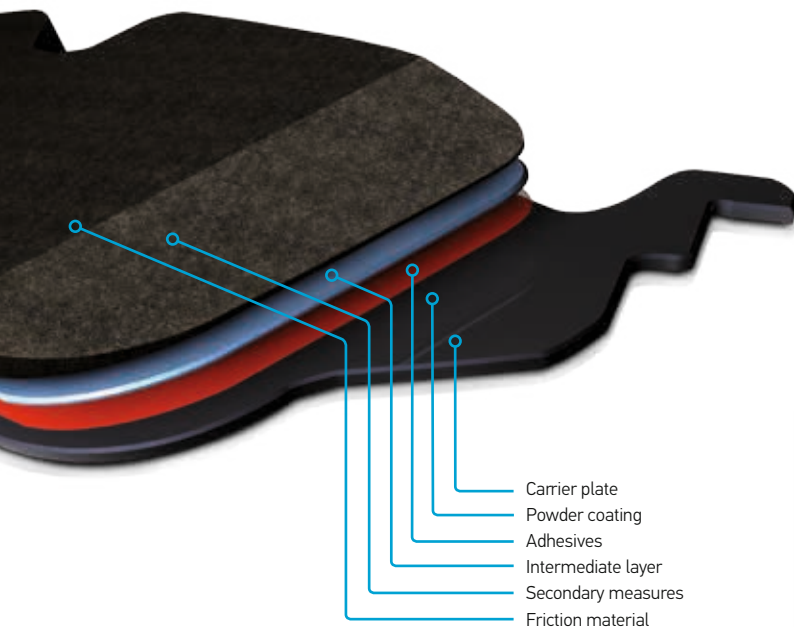
Braking distance (cold) from 100 km/h under maximum deceleration  
Graphic based on: VW Passat B6 (-2010) - B8 (2010-)

### For your safety

A high coefficient of friction ensures maximum braking performance at any temperature. High-quality brake pads from Hella Pagid ensure the highest level of performance from the first all the way to the last braking maneuver.



Graphic based on: VW Passat B6 (-2010) - B8 (2010-)



## Anatomy of a brake pad

Our brake pads comprise multiple layers, whereby each layer fulfills certain functions. When all parts work together in conjunction with secondary measures, maximum reliability and durability are ensured.

### DID YOU KNOW ...

... that a brake pad used in an emergency maneuver to brake from 200 km/h to 100 km/h heats up to over 250 °C in just 3.5 seconds? An oven needs 15 minutes for this, which is 250 times longer.

## ATTENTION: BRAKING FORCE KILLER!

Brake pads can only offer trouble-free operability if they are in good working order. The following are typical symptoms of damaged and worn brake pads:



### Separation of the brake pad

The brake pad is partially separated from the base plate

#### Cause:

- Thermal overload
- Underlying rust
- New brake pad mounted on old disk.



### Thermal overload

Brake pad damaged by overheating. The binding agents in the pad are destroyed and the brake pad material cracks

#### Cause:

- Jammed/stuck guide sleeve
- Brake caliper piston is stiff
- Extreme driving patterns or continuous braking

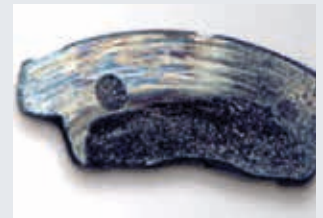


### Worn patches and scoring

The surface of the brake pad exhibits marked scoring and signs of wear

#### Cause:

- New pads were mounted on old, worn brake discs
- Foreign body between the brake pad and the disc
- Environmental influences (salt, dirt, etc.)



### Excessive wear

Brake pads are worn down to the base plate

#### Cause:

- Inadequate maintenance
- Inspection intervals overshoot
- Continuous braking on descents

The schematic illustrations, pictures and descriptions are for explanation and presentation of the document text only, and cannot be used as the basis for carrying out the repair. Repair work to brake systems may only be carried out by qualified specialists.

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