

# THE TEST WINNER.

Mercedes-Benz Trucks Genuine brake discs and pads. Quality and safety for your Actros and Arocs.





### **EVERY PART A PIECE OF SAFETY.**

We thoroughly tested brake parts from various manufacturers. The most important finding up front: your safety takes first place. You know which products you can trust the most - which parts reliably fulfil the daily requirements on the road. Genuine parts from Mercedes-Benz Trucks pass all challenges in the test and in everday use.



#### Optimal friction pairing.

How good is the friction pairing of brake disc and brake pad products from competitors and Mercedes-Benz Trucks Genuine Parts? We set up a comparison test to precisely analyse this. We want to ensure that you can rely on your Actros and Arocs in all critical situations. The test's findings speak for the excellent durability and endurance of Mercedes-Benz Trucks GenuineParts.

#### High quality standards.

Parts that wear out prematurely reduce safety and have many other consequences. For example cracks in the brake disk that are larger than 60mm will invalidate the operating license. With genuine parts from Mercedes-Benz Trucks, you are choosing precision-fit parts for very good road handling and longer-lasting endurance.

#### Profitability for your business.

You have a competitive edge with parts from Mercedes-Benz Trucks. The quality of the brake discs and brake pads helps to prevent downtime and repair costs. Instead of unnecessary visits to the workshop, your Actros and Arocs are efficient on the road.

<sup>&</sup>lt;sup>1</sup>Brakes product test | TE/PXD, TE/SCM | Stuttgart, Germany, 27 October 2023

### **CRACK TEST: BRAKE DISCS.**

#### The conditions.

- Examination for heat cracks with tearing of the brake disc up to the cooling channel
- 500 brake applications at 85 kph for 40 seconds each<sup>1</sup>
- 50°C initial temperature of the brake disc
- Slight, constant braking torque of 2,800 Nm (max. braking torque of 30,000 Nm)
- Without the use of a retarder

#### The findings.

With competitors' products, large temperature fluctuations lead to strong thermal stresses. The consequences are gaping heat cracks up to the cooling channel.

The genuine parts from Mercedes-Benz Trucks show to have a very homogenous distribution of temperature and only fine cracks appear.

#### The conclusion.

The Mercedes-Benz Trucks genuine brake disc is the only part to pass all 500 test braking procedures and has a significantly longer life (up to factor of 3.3).



Winkler:

Full crack after 150 braking procedures - longest crack of 86 mm



Auger:

Europart: Wheel side

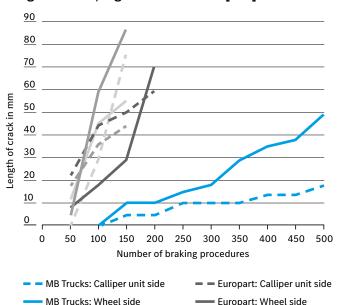
Full crack after 150 braking procedures - longest crack of 75 mm



**Europart:** 

Full crack after 200 braking procedures - longest crack of 70 mm

#### Longest cracks, regardless of sector [mm]



**Mercedes-Benz Trucks:** 500 braking procedures longest crack of 49 mm — — Winkler: Calliper unit side – Auger: Calliper unit side

- Winkler: Wheel side
- Auger: Wheel side

1 SAE 13080

### **WEAR TEST: BRAKE PADS**

#### The conditions.

- 3 test cycles with initial disc temperatures of 100°C, 200°C, 300°C
- Different speeds and braking torques (100 to 50 kph)
- Without the use of a retarder

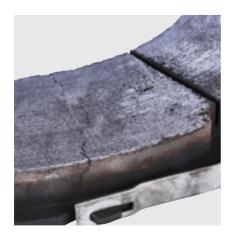
#### The findings.

Compared to the Mercedes-Benz Trucks genuine brake pads (at an operating temperature of 300°C and 100 to 50 kph¹), the competitors' brake pads wear out faster:

Auger: 6.6 x Winkler: 2.5 x Europart: 1.5 x

#### The conclusion.

The Mercedes-Benz Trucks genuine brake pad has a **significantly lower wear** than the competitors' brake pads.

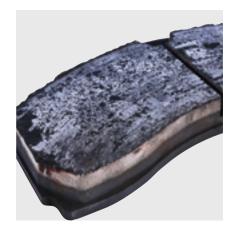


**Winkler:** Cracking in the pad material –

full crack to the pad carrier

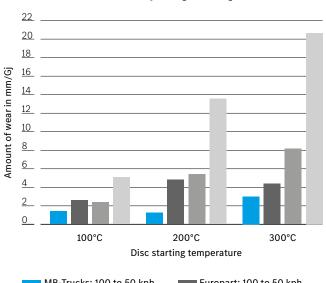


**Auger:**Very high wear during the tests (completely)



**Europart:**Breakage of the pad material and cracking

#### Maximum wear of brake pads [mm/GJ]



MB-Trucks: 100 to 50 kph
Winkler: 100 to 50 kph

1ISO 26866

Europart: 100 to 50 kph

Auger: 100 to 50 kph



## **QUALITY YOU CAN COUNT ON.**

Mercedes-Benz Trucks genuine brake discs and brake pads have been specially engineered for your vehicle. They have an excellent material quality and a friction pairing that is optimally harmonised. This not only serves to provide more safety when braking, it also ensures exceptional durability and economic viability.



#### Example calculation.

The advantages of friction pairing for Mercedes-Benz Trucks GenuineParts compared to parts from Winkler at 500,000 km. Delta durability: brake disc factor of 3.3 / brake pad factor of 2.5.1

#### **Assumption:**



Mercedes-Benz Trucks brake disc lasts 400,000 km - 1 replacement<sup>2</sup> required, Winkler brake disc in comparison approx. 3 changes required

Mercedes-Benz Trucks brake pads last 200,000 km - 2 changes<sup>2</sup> required, Winkler brake pads in comparison approx. 5 changes required

#### **Result:**

- 2 workshop visits for the friction pairing / Mercedes-Benz Trucks Genuine Parts
- Around 5 workshop visits for the friction pairing / Winkler parts



### Your advantage:



Around 3 fewer workshop visits/downtime days with Mercedes-Benz Trucks Genuine brake discs and pads. Up to 40 % cost savings (parts).3

Brake pads: Wear test conditions ISO 26866 disc initial temperatures 300°C, speed 100 to 50 kph Brake disc: crack test conditions SAE J3080

<sup>&</sup>lt;sup>3</sup> Based on customer net prices in Germany



 $<sup>^{\</sup>rm 1}\mbox{Wear}$  is individual depending on the application.

<sup>&</sup>lt;sup>2</sup>The pads must also be replaced when the brake disc is replaced.



### **ADVANTAGES THAT PAY OFF.**

Your Actros and Arocs are built for daily deployment – for difficult conditions, wind and weather. By choosing Mercedes-Benz Trucks Genuine brake discs and brake pads, you ensure safety, reliability and profitability. Our Mercedes-Benz Trucks Genuine friction pairing has the following advantages:

- · Optimally harmonised friction pairing
- · High-quality, low-wear materials
- Homogenous temperature distribution and good heat dissipation
- · Excellent heat crack resistance
- Long lifespan

- Brake springs fixated to the brake pad carrier due to safety reasons (re-use is ruled out)
- Precise match to Mercedes-Benz Trucks
- Outstanding braking characteristics, also in critical situations

Regarding the information in this brochure: changes may have been made to the product since this brochure went to press (February 2024). The manufacturer reserves the right to make changes to the design and shape, to the colour and to the scope of delivery during the delivery period, provided that the changes are reasonable for the buyer, taking into account the interests of the Mercedes-Benz Truck seller. Insofar as the Mercedes-Benz Trucks seller or the manufacturer uses signs or numbers to designate the order or the product ordered, no rights can be derived from this alone. The illustrations and content may also contain accessories and special equipment that are not part of the standard scope of delivery. Colour deviations are due to the printing process. The illustrations shown are only examples and do not necessarily reflect the actual condition of the original vehicles. Information on your rights to information, correction, complaints, the use of your data and the data protection officer can be found at www.mercedes-benz-trucks.com/datenschutz. www.mercedes-benz-trucks.com

Daimler Truck AG, Fasanenweg 10, 70771 Leinfelden-Echterdingen, Germany

(A) and Mercedes-Benz are trademarks of Mercedes-Benz Group AG.