

*Innovation in Motion*



# Shift up to a new standard for clutch systems.

PCC – Pro Control Compound®  
Clutch Friction Material by Miba



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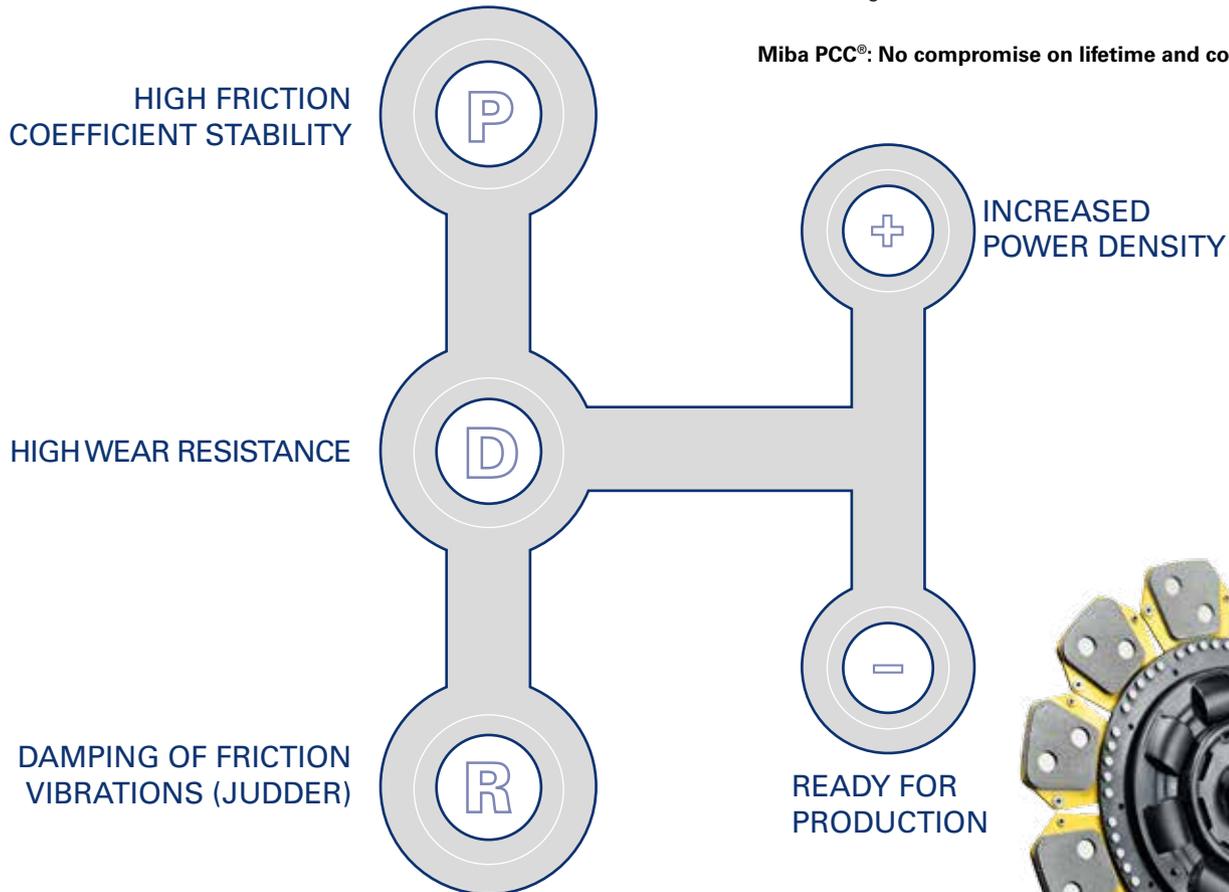
The clutch lining is not only essential for the transmission of the engine torque, it is equally important for the wear of the clutch and the shifting comfort. Frequent shifting in construction trucks and special vehicles exposes the material to significant load.

At Miba, this is a challenge we cherish. Our response: Miba PCC®.

Miba PCC® is the further development of sintermetallic clutch linings and defines a new standard for clutch systems.

Miba PCC® is the first clutch lining worldwide to combine the advantages of sintermetallic and organic friction materials, allowing you to benefit from the long service life of a sintermetallic lining without compromising the high shifting comfort of an organic friction lining.

**Miba PCC®: No compromise on lifetime and comfort.**



## It's a sintermetallic evolution: Pro Control Compound®

PCC® is the result of years of research and global development partnerships with our customers, allowing us to be one step ahead in the market. The innovative material properties of the sintermetallic composition, combined with advanced process technology, ensure that friction vibrations are effectively absorbed even when the system is subjected to significant load. The torsional damping efficiency of the clutch is also supported by the larger inner diameter of the friction surface, because the higher power density of Miba PCC® permits the use of smaller pads: a high efficiency damper system (increased diameter) can be applied. The high thermal durability – the friction coefficient remains stable throughout – ensures the structural stability and operational safety of the clutch. The wear rate of the pressure plate corresponds to the low level of an organic friction lining.

The excellent drivability is comparable to advanced organic friction linings. Even at maximum strain, there are no unpleasant odors. From an overall systems perspective, significant cost saving potential is possible by applying a design to PCC® approach.

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## The performance of Miba PCC® compared with advanced organic friction linings

Peak temperature limit:	+100%
Maximum service life:	+50%
Torque:	+25%
Clutch:	single-disc-clutch instead of double-disc-clutch
Wear-adjustment systems:	not required

### The benefits of Miba PCC® at a glance

Property profile	Sinter	Organics	Miba PCC®
Friction coefficient stability	●		●
Resistance to wear	●		●
Shifting comfort		●	●
Mating plate wear		●	●

# No compromise on lifetime and comfort.



## **No need to compromise on lifetime and shifting comfort with the new standard for clutch systems.**

The innovative material composition and process technology of Miba PCC® friction material provides high stability of the friction coefficient and high wear resistance while minimizing NVH / judder and mating plate wear. The result: an effective combination of wear resistance, shifting comfort and increased power density – for a new generation of clutch systems.

## **Harness progress to swiftly improve competitiveness of your product range.**

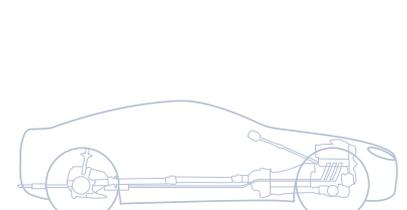
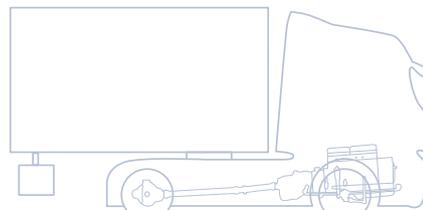
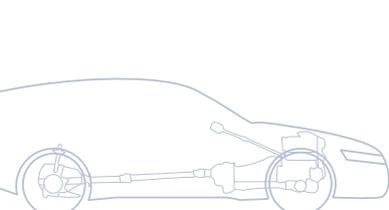
Miba PCC® is a milestone in the development of progressive clutch linings and has the potential to be significantly superior to organic linings in selected segments. With its improved properties, Miba PCC® offers new possibilities to downsize clutch systems, reduce lifecycle costs and increase shifting comfort. Miba PCC® produces significant added value for the end customer. Get ready for the future of clutch systems.

## **Come on board and benefit from our well-proven technology irrespective of series volume.**

Miba's new clutch linings are ready for industrial production. Miba relies on existing volume production technologies with a high degree of automation and maximum flexibility. A clearly defined process structure translates into top product quality. This allows us to handle an order volume of several million parts per year just as efficiently and reliably as contracts for niche markets. Whether you manufacture construction vehicles, trucks or passenger vehicles: Miba PCC®'s reliable product quality gives you the edge irrespective of your series volume.

## **Rely on worldwide availability and a strong development partnership.**

Miba PCC® is another convincing proof of Miba's superior art of engineering. Due to our many years of experience, leading Tier 1 suppliers and OEMs rely on us as the development partner of choice. As a company with a global footprint, we are represented in every important market and are therefore always close to our customers. Our global sites and resources guarantee a high level of availability no matter where you are based. Benefit from our leading technology and customized solutions to gain a lasting advantage.



[www.miba.com](http://www.miba.com)

# Miba Pro Control Compound PCC®

## Engineered Tribology

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