



# GOETZE®

## GDC PISTON RING OE TECHNOLOGY



### REASONS TO BELIEVE

#### Goetze Diamond Coating (GDC)

- An example of Goetze's R&D excellence
- Coats the surface of the rings with nano-sized diamond particles
- Has more than four times better wear resistance than plain chromium coated rings and more than twice that of the ceramic coated rings
- Self-lubrication under stress
- Increased resistance to scuffing between the piston and the cylinder
- Offers consistently good sealing function



ENGINE EXPERTISE





# GOETZE®

## THE GDC PISTON RING / IN ACTION

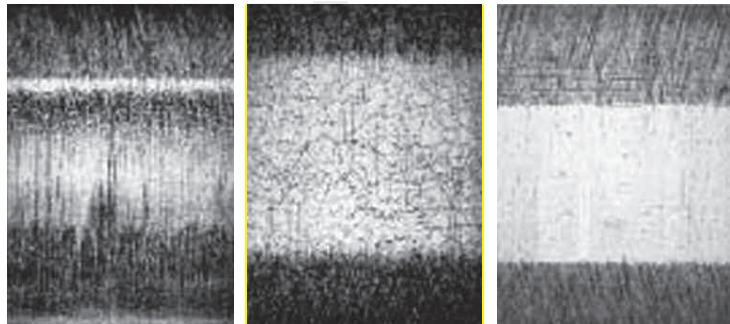
The Goetze Diamond Coated Piston Ring has been used in diesel engines for passenger cars and commercial vehicles since 2004, and the extensive testing period has yielded anticipated yet remarkable outcomes.



### BETTER PERFORMANCE AT NORMAL OPERATING TEMPERATURES:

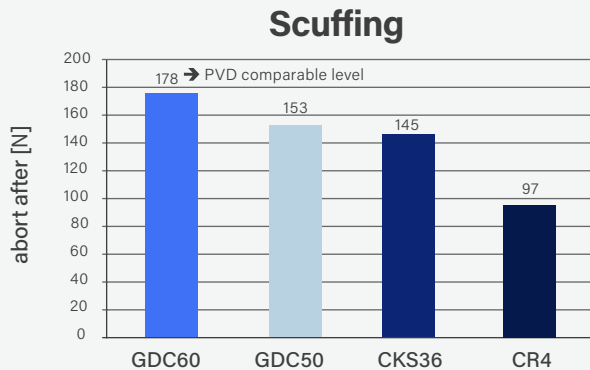
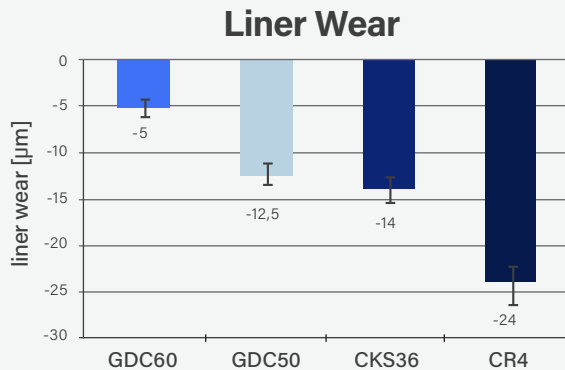
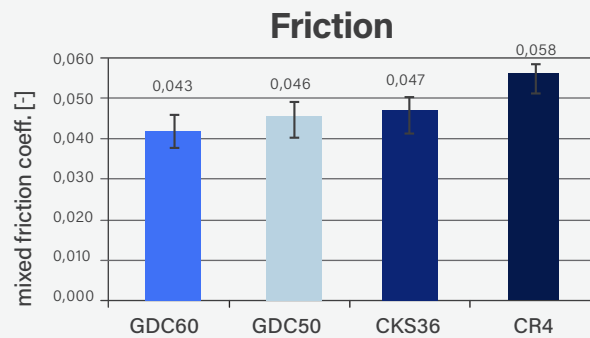
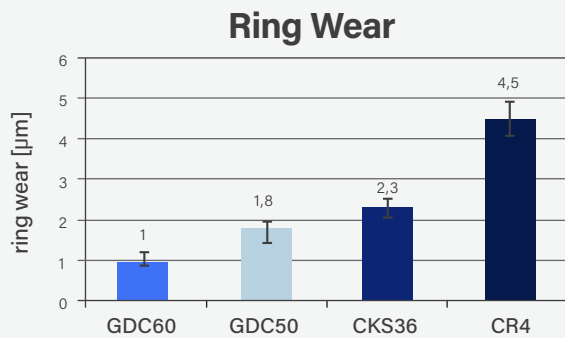
Up to a temperature of around 500°C, the diamond particles within the GDC Piston Ring lead to a considerably higher level of scuff and wear resistance than that of chromium ceramic coatings. In fact, wear resistance is more than double.

A reference test in a six cylinder mid-range diesel engine for a commercial vehicle showed the same wear characteristics results, which have since been repeated in many other commercial vehicle and passenger car engines.



Piston ring running surfaces after engine tests (left to right): conventional chromium coating, chromium ceramic coating CKS and chromium diamond coating GDC.

## CHARACTERISTICS AND PERFORMANCE



ENGINE EXPERTISE

