

# BREMSKERL 4004

## Material description

metal free, non flexible, grey-black, Resin-bonded, asbestos-free

## Availability

pads moulded to customer drawings

## Applications

Brakes and clutches for usual mechanical engineering

## Technical Data

mean friction coefficient $\mu$ (dry) for design purposes	.....	0,38
recommended range of performance:		
$p$ max [N/cm <sup>2</sup> ]	.....	400
$v$ max [m/s]	.....	50
Max. application temperature [°C]		
continuously	.....	250
intermittently	.....	300
Hardness at 20°C	ISO 2039-1 [N/mm <sup>2</sup> ]	approx. 300
Tensile strength at 20°C	ISO 527 [MPa]	approx. 30
Impact strength at 20°C	DIN 179-1 [kJ/m <sup>2</sup> ]	approx. 3
Specific weight	DIN 53479 [g/cm <sup>3</sup> ]	2,0
Bondability	.....	good

Can be used in oil-immersed applications, dependent on oil type

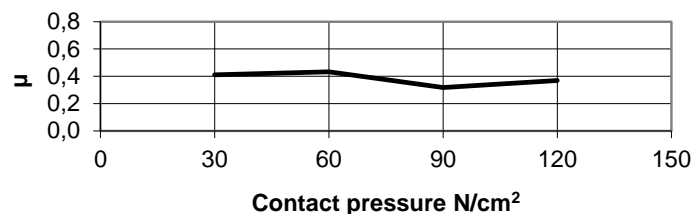
The maximum pressure / temperature / speed should not occur simultaneously.  
This information is advisory and is to our best knowledge.  
All the physical properties shown above are mean values.

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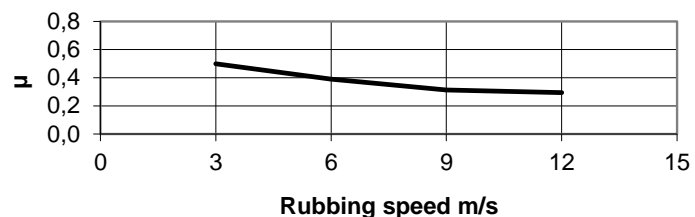
Der Spezialist für Brems- und Kupplungsbeläge  
The specialist for brake and clutch linings



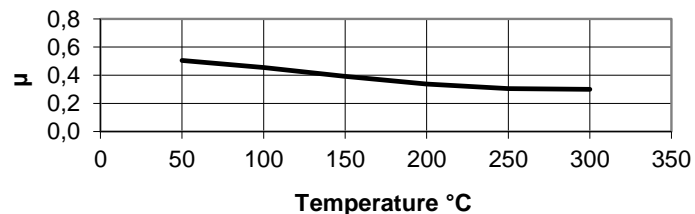
## Friction characteristics



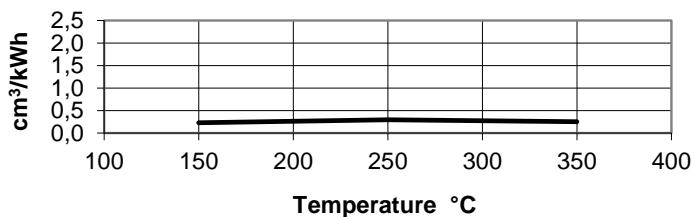
$v = 6$  m/s  
 $T = 150^\circ\text{C}$



$p = 60$  N/cm<sup>2</sup>  
 $T = 150^\circ\text{C}$



Continuous braking  
 $v = 6$  m/s  
 $p = 60$  N/cm<sup>2</sup>



spec. wear rate  
 $v = 15$  m/s  
 $p = 50$  N/cm<sup>2</sup>

Test conditionen: sample size: 2x5 cm<sup>2</sup>, counter material: EN-GJL-250, disc brake

The friction coefficients determined by small-scale brake lining tests may not be compatible to practice and further tests may be required.