

D a t a s h e e t

IB 116*

Description: brake block material for cast iron replacement (LL)

Material description: Resin bonded with metal powder and special additives
without asbestos

Range of application: LL-brake block as cast iron replacement on international freight wagons

Mating material: Wheel rim steel

Physical properties

Mean coefficient of friction (for calculation) ¹	μ_m	=	comparable with cast iron for UIC freight wagons
Specific pressure ²	p	≤	150 N/cm ²
Friction rubbing speed at the brake radius ²	V	≤	40 m/s
Temperature sustained ²	ϑ	=	400 °C
Temperature momentarily	ϑ	=	600 °C
Density	ρ	=	2,12 g/cm ³
Compressive strength acc. to EN ISO 604	σ_{dB}	=	86 N/mm ²
Modulus of elasticity acc to UIC	E	=	2020 N/mm ²
Plastic hardness acc. to ISO 2039/1	H	=	157 N/mm ²
Thermal conductivity (standard value)	λ	=	2,9 W/(m K)
Specific heat capacity (standard value)	c_p	=	1,74 kJ/kg K

¹) Coefficient of friction tolerances acc. to UIC-leaflet 541-4 VE

²) Coincidence of the max. values may create other results.

This information is recommended as a first guideline and do represent the material performance under standard conditions and results from standard dynamometer tests. As materials behave different under various conditions performance may vary. For final selection additional tests according application might be necessary. Our application engineer will support you in choosing the right quality. Our advise does not release you from the obligation to check its validity and to test our products as to their suitability from the intended application and uses.