Friction Business

Knorr-Bremse Product Portfolio Friction

April 2018

The portfolio of organic pads by Icer Rail and COSID cover proven materials for various applications including UIC homologated pads

COSID RAIL FRICTION IcerRail

portfolio extract

Organic Pads

COSID 801

Hydraulic and standard applications

High stability of friction coefficient also in high energies

Low pad wear and very low disc wear

COSID 828

Excellent pad wear

Excellent wet performance

High thermal stability

UIC homologation 541-3

ICER 106 ICER 203

Application in passenger coaches, EMU / DMU and locomotives

UIC homologation 541-3

ICER P74 ICER P16

High friction level

Stable in high energies

ICER 914

Passenger coaches, EMU / DMU and metro application

Very good pad and disc wear characteristics

With the integration of COSID products Knorr-Bremse can offer a full range of brake pads for hydraulic applications like LRVs

COSID RAIL FRICTION IcerRail

portfolio extract

Hydraulic Pads

COSID 553

Excellent wear rates

High thermal stability

COSID 558

High friction level

High thermal stability

COSID 801

Hydraulic and standard applications

High stability of friction coefficient also in high energies

Low pad wear and very low disc wear

COSID 803

High static friction level

COSID 818
COSID 820

High performance applications

High thermal stability

Excellent wet performance

Icer Rail and COSID offer UIC homologated blocks for freight cars and passenger coaches (LL, L and K) as well as metro applications

portfolio extract

Organic Blocks

COSID 697

METRO

Excellent wear characteristics

Unique recycling concept

Low noise behaviour

COSID 704

K BLOCK

New K-Block with lowest wear rates

For Cast iron replacement for freight cars

UIC homologation 541-4

COSID 804
ICER P73

METRO

High friction level for metro and locomotive application

Designed for short brake distances

IB116*

LL BLOCK

For cast iron replacement in freight cars

UIC homologation 541-4

ICER 903/62

L BLOCK

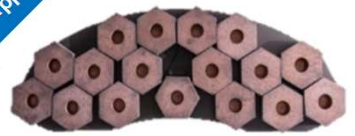
For cast iron replacement in passenger coaches

UIC homologation 541-4

RAILSERVICES
always on track

Icer Rail and COSID Material Overview - Standard Applications

Brake Pad	Classification	UIC homologated	GOST homologated	High Speed >200 kph	Coaches	EMU/DMU <200 kph	Locomotives <200 kph	Metro	LRV	High thermal load application
FLEXPAD	*Flex. Sinter Pad*		x	x	x	x	x			+++
FLEXPAD Silent	*Flex. Sinter Pad*			x	x	x	x			+++
ISOBAR	*Flex. Sinter Pad*		x	x	x	x				+++
COSID 553	*Hydraulic*								x	+++
COSID 558	*Hydraulic*								x	+++
COSID 803	*Hydraulic*								x	
COSID 805	*Hydraulic*								x	+
COSID 818	*Hydraulic*								x	++
COSID 820	*Hydraulic*								x	
ICER 937	*Hydraulic*								x	+
COSID 801	*Hydraulic + Standard Organic*				x	x			x	+
COSID 828	*Standard Organic*	x			x	x		x		
ICER 106	*Standard Organic*	x			x	x		x		
ICER 203	*Standard Organic*	x			x	x		x		
ICER 914	*Standard Organic*				x	x		x		
IR P16	*Standard Organic*		x		x	x	x	x		
IR P74	*Standard Organic*		x		x	x	x	x		



Brake Block	Classification	UIC homologated	GOST homologated	Coaches	EMU/DMU <200 kph	Locomotives <200 kph	Freight car	Metro
COSID 697	*Metro Block*							x
COSID 804	*Metro Block*		x		x	x		x
IR P73	*Metro Block*							x
COSID 704	*K Block*	x					x	
COSID 804UK	*K Block*					x	x	
ICER 904	*K Block*			x		x	x	
COSID 903	*L Block*						x	
ICER 903/36	*L Block*			x	x			
ICER 903/61	*L Block*			x	x			
ICER 903/62	*L Block*	x		x	x			
ICER 905	*LL Block*					x	x	
IB116*	*LL Block*	x					x