

## Railway Friction Materials

### K Brake Blocks

Composite brake shoes type K, as one of the railroad friction materials on the market, are in extensive use in the freight sector; especially on new or refurbished goods wagons following the European noise reduction legislations to reduce the rolling noise emission.

The rolling noise of railway freight wagons can be mainly attributed to wheel surface roughness which is greatly influenced by the type of brake shoe selected as part of the braking system.

The wheels in contact with cast iron brake shoes for example, have higher surface roughness in comparison with composite K or LL brake shoes that offer up to 10 dB reduction in rolling noise emission.

In developing composite K brake shoes one should take into account the following performance and operational requirements as part of design parameters:

- (i)- Tare to laden performance ratio
- (ii)- Winter performance
- (iii)- Effective and uniform heat distribution during brake applications
- (iv)- Effect on track circuit and signalling system
- (v)- Frictional behaviour and wear characteristics during drag braking

MLP Friction Braking Limited with many years of direct experience in this area of product development can provide the necessary technical support and assistance to its clients to develop such composite K brake shoes to meet the requirements of UIC 541-4 leaflet.

If you would like more information about this product development consultancy service, please do not hesitate to contact us.

### Contact Details

**For technical enquires:**

Dr Mahmoud Lotfipour  
E-mail: [m.lotfipour@frictionbraking.com](mailto:m.lotfipour@frictionbraking.com)

**For general enquiries:**

Support Team  
E-mail: [contact@frictionbraking.com](mailto:contact@frictionbraking.com)

Website: [www.frictionbraking.com](http://www.frictionbraking.com)