

Position N°1



Maintenance Free Sliding Materials in Rail Systems



Position N°1

DEVA and Rail Systems

Federal-Mogul DEVA GmbH

- Has been manufacturing self-lubricating materials for more than 100 years
- Has a long tradition as supplier for Rail Systems
- Has optimised products for severe conditions

Quality

A quality brand – we are certified according to

- DIN ISO 9001:2000
- ISO 14001
- ISO TS 16949:2002

Materials

deva.bm® and deva.bm®/9P

deva.bm® and deva.bm®/9P are self-lubricating composite materials consisting of a steel backing and a deva.metal® sliding layer. While deva.bm® has graphite as incorporated lubricant deva.bm®/9P uses PTFE as lubricant. A special technology guarantees an all-over and reliable bonding of the sintered deva.metal® layer on the steel backing material. The micro distributed lubricant copes with micro movements like a grease film.

- Thin walled, fits into almost any space
- Self-lubricating properties even at minute movements
- The steel backing allows highest loads
- Stick-slip-free, corrosion resistant

Materials (continued)

deva.tex®

deva.tex® is a self-lubricating, glass fibre reinforced composite material which is produced using a special winding technology. The base material guarantees high strength, while the bearing lining contains special non-abrasive fibres and solid lubricants which ensure excellent tribological properties even in the event of edge loads or impact loads.

- Adjustable wall thickness – full machinable on both layers
- Optimised for replacement of existing bronze bushes
- Not swelling
- Lowest friction coefficient
- High edge-load capability
- Insensitive to shock loads

deva.metal®

deva.metal® self-lubricating material is a sintered product. The advantage of this monolithic material is the possibility to machine complex geometrical shapes and still maintaining the self-lubricating properties of the material throughout the entire machined part.

- Self-lubricating properties even at minute movements
- Applicable for high loads, corrosion resistant, stick-slip-free

deva.glide®

deva.glide® self-lubricating material consists of highly wear resistant copper cast alloys with evenly distributed solid (macro distributed) lubricant plugs specially designed for the required application.

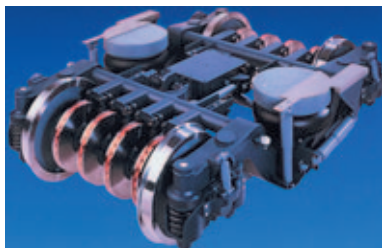
- Allows maintenance free operation instead of lubricated materials
- Thick walled; high wear resistance
- Applicable for large parts



Applications

Rolling stock

- Pivot bearing
- Bogie bolster
- Steered-axle bogies
- Brake linkages
- Vibration absorbers
- Cardan shafts
- Multi-gauge axles
- Tilting trains
- Automatic couplers
- Pantographs
- Spring-mounted driver seats
- Articulated cars
- Passenger doors
- Sliding walls and roofs on boxcars
- Tipping troughs
- Special purpose vehicles (cranes, track laying machinery, etc.)



DEVA® – Advantages at a glimpse:

- Application – specific design and problem solving
- Certified
- R & D support facilities
- Wide range of materials to ideally suit your application
- Full range of test facilities
- Specialized application manager assisting with expert knowledge world wide
- World wide sales network
- Assembly assistance
- Bearing inspection service



Track construction

- Switches
- Car retarders
- Automated shunting tractors

References

Our customers are the big three European vehicle manufacturers Alstom, Siemens Transportation Systems and Bombardier Transportation as well as suppliers like Voith Turbo Scharfenberg or operators like Hamburger Hochbahn.



Voith Turbo Scharfenberg

For further detailed material data as well as design and installation proposals please refer to the individual material handbooks and ask for assistance.

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