

## Frequently asked questions (FAQs) about BiO-FiLL

### 1. Does BiO-FiLL tyre fill protect tyres against all tyre damages and injuries?

BiO-FiLL prevents all tyres from immediate breakdown due to sharp tyre killers (e.g. broken glass, steel, wood, sharp edges etc.).

### 2. Is it necessary to regularly check the inner tyre pressure?

No, this is not necessary. Once filled with BiO-Fill the tyre pressure is constant over the lifetime of tyre and filling.

### 3. Can the tyre rim be used again at the end of the lifetime of the tyre?

Yes, the rim can be used with a new tyre casing. Old tyre and old filling are removed, then a new tyre can be mounted onto the rim.

### 4. Which types of tyres can be filled with BiO-FiLL?

Generally, all types of pneumatic tyres can be filled with BiO-FiLL – tube tyres and tubeless tyres.

### 5. What is the lifetime of BiO-FiLL inside the tyre?

This depends on the lifetime of the tyre itself and the application the tyre is used for. BiO-Fill prevents airloss-related injuries and breakdowns thus significantly reducing running and maintenance costs of the tyre. Therefore, tyres with BiO-Fill may have a lifetime of up to 10 years. In very heavy applications where the tyre is worn out completely after a few months, BiO-Fill will allow the machine to be brought back safely to maintenance even if the tyre has broken down completely.

### 6. Does BiO-FiLL extend tyre life?

BiO-FiLL cuts down on unnecessary tyre repairs during the life time of the tyre thus allowing failure free operation of machinery. This may lead to an overall longer tyre life because tyre damages will not lead tyre deformations and carcass rupture. The main benefit of using BiO-Fill is thus already generated during tyre lifetime.

### 7. Is it necessary to remove tyre killers from the tyre casing?

Yes, in order to avoid secondary damages tyre killers should be removed from the tyre.

### 8. Is BiO-FiLL really non inflammable?

Yes, BiO-Fill contains a high percentage of water and also renewable raw materials thus leading to a natural flame protection. Flame resistance was also tested according to DIN 22118, a German mining standard for.

**9. Is BiO-FiLL really non toxic?**

Yes, BiO-Fill is the only tyre fill material worldwide that is produced without cancerogenous ingredients.

**10. Can BiO-FiLL leak out of the tyre in case of injury?**

This is not the case. When processed correctly, BiO-Fill is a solid and highly elastic polyurethane.

**11. Does the weight added to the tyre by the filling have an effect on the vehicle?**

Often, it is necessary to add weight to the vehicle in order to stabilise it under working conditions. Filling the tyres the balance point of the vehicle (e.g. mobile digger) is shifted downwards which allows the machine to be run without external counter weights.

It has to be mentioned though that not all vehicles are designed to carry extra weights. Thus it should always be checked prior to filling if the vehicle in question can tolerate the extra centrifugal force developing during operation.

**12. Can BiO-FiLL be also used for lorries/trucks at high velocities?**

The speed limits for the use of tyre fills are generally restricted to 55 km/h (35 mph) and for peak speeds up to 88 km/h (55 mph) for at maximum 4 hours. Higher speeds might not be tolerated by the vehicles.

**13. Does the loading capacity of the vehicle change when tyres are filled?**

Since the overall allowed weight of a vehicle is not increased, the loading capacity might be reduced.

**14. What are the temperature limits of BiO-FiLL in use?**

BiO-Fill filled tyres can be run at temperatures between app. -40°C/-40 °F up to +125°C/257 °F. Outside this range the physical and chemical properties of the polyurethane will be altered thus also changing the overall performance.

**15. Is it possible to fill used tyres with BiO-FiLL?**

It is possible to fill used tyres as long as the carcass is undamaged and there is no immediate leakage during filling. If liquid tyre sealers have previously been used, the tyre must be thoroughly cleaned because remainings of the sealing agent might lead to unwanted cross reactions with BiO-Fill. Since hidden carcass damages cannot be completely excluded, it is recommended to fill new tyres in order to allow for a maximum flatproofing benefit.

**16. Can I fill my tyres with BiO-FiLL at home?**

This is not possible. Filling tyres professionally, a filling station and tyre mounting/ demounting equipment is necessary. Therefore, if interested in tyre filling, please contact PURinvent to locate your nearest filling station.

**17. Is it possible to retread filled tyres?**

Cold retreading of filled tyres has been successfully tested at professional retreaders and can be carried out without any effect on the filling.

**18. Why is BiO-FiLL even more successful in private vehicles?**

BiO-Fill is widely used in electric wheel chairs, trolleys, also in golf carts, lawn mowers etc. because these vehicles can be deposited inside without development of any toxic smells.

**19. How long does it take to fill a tyre?**

The filling itself only takes a few minutes for a small tyre and up to 60 minutes for a very large tyre. Preparation of the tyre for the filling process and curing time of the filling require the tyre to be inside the filling station at least 24 hours prior to filling. After filling the tyre must be rested on the side for 24-48 hours to allow for complete curing.

**20. How do I dispose of an old tyre filling?**

Since BiO-Fill is a non toxic filling agent it can be disposed of as normal waste. If necessary you can obtain a manufacturer's declaration from Bindur.