



DECOSPHAERA® BIO 8 TR



Chemical description and main use

DECOSPHAERA® BIO 8 TR are crosslinked polyurethane spherical microbeads, produced with renewable vegetable sources through a water-based industrial process.

Main use

DECOSPHAERA® BIO 8TR enhance both performance and aesthetics in coatings and specialty applications. Their unique balance of toughness and elasticity makes them essential for high-performance formulations, offering:

- **Matting Properties** – Reduce gloss, even at 85°, while maintaining high black jetness.
- **Haptic Enhancement** – Provide a high slip soft touch.
- **Functional Benefits** – Improve mechanical strength, abrasion resistance and chemical durability.

Typical values

Appearance at 20 °C: White powder

Dry content: 99 ± 1%

pH (10% dispersion): 6 - 9

Oil absorption: 60 - 110 %

Granulometry D(50): 3 - 8 (µm)

Bulk density: 300 - 500 (g/l)

Product properties

The dosage of DECOSPHAERA® BIO 8 TR in varnish should be adjusted based on the desired effect. They offer broad compatibility, making them suitable for use in water-based, solvent-based and UV/EB coatings; however, it's important to conduct compatibility testing for specific formulations, especially when incorporating them into solvent-based paints. The low oil absorption of DECOSPHAERA® BIO 8 TR allows for high loading levels, enabling the achievement of deep matte finishes without compromising rheology. Furthermore, DECOSPHAERA® BIO 8 TR can significantly enhance surface flexibility.

DECOSPHAERA® BIO 8 TR can be incorporated at any stage of processing, as long as adequate stirring is applied to ensure uniform dispersion.

Sustainability features

DECOSPHAERA® BIO 8 TR is made with raw materials from vegetal sources, obtained from plant-derived substances that, at the best of our knowledge, are not in competition with food production.

Bio-based carbon content (as a fraction of total organic carbon, according to ASTM D6866)*: **52%± 2**

Bio-based content (as a fraction of total polymer weight)**: **approx. 51%**

* Bio based carbon content refers to carbon only.

**Bio based content also considers other elements of the product such as oxygen, hydrogen and nitrogen, which may lead to a different value compared to carbon.

Applications

DECOSPHAERA® BIO 8TR is widely used in various applications, including:

- High-quality paints & specialty coatings – Enhancing performance and visual appeal, particularly in the wood and leather industries, where they achieve deep matte finishes with a natural haptic feel and ensure surface protection.
- Coil coatings (water-based or UV/EB) – Improving flexibility while providing gloss reduction and haptic properties.
- Industrial applications – Serving in anti-vibration and sound-damping solutions.

Storage and handling

DECOSPHAERA® BIO 8 TR is stable for 12 months from the production date when stored in dry, cool conditions within original sealed boxes. The recommended storage temperature is between 5°C and 30°C.

Please close the inner lining of opened boxes to avoid moisture absorption and contamination.

Packaging

DECOSPHAERA® BIO 8 TR is available in 20 kg boxes.

Material safety

Please refer to the product's safety data sheet before use.

Regulatory information

In case compliance with specific regulations is required please contact our sales representatives.

polymerbeads.lamberti.com