



enhanced  
by Omya

# Luxury Vinyl Tiles (LVT)

Calcium Carbonate for  
polymer-based flooring systems



THINKING OF TOMORROW



# About Omya

Omya is a leading global producer of industrial minerals – mainly mineral modifiers and pigments derived from Calcium Carbonate and Dolomite – and a worldwide distributor of specialty chemicals. Founded in 1884 in Switzerland, Omya has a global presence extending to more than 175 locations in over 50 countries with 8,000 employees. The company provides a wealth of product solutions that contribute to its customers' competitiveness and productivity in multiple industries such as Technical Polymers, Construction, Printing & Writing, Packaging, Food, Personal & Home Care, Pharmaceuticals, Agriculture, Forestry, Water and Energy.

## Adding Customized Value to the Flooring Industry

Omya is constantly developing and offering tailor-made Calcium Carbonate grades benefitting our customers applications, both in rigid and soft PVC, such as Luxury Vinyl Tiles (LVT). We have a successful track-record in PVC applications since 1952, developing the first surface-treated Calcium Carbonate – a breakthrough at the time – as increased loading levels of Calcium Carbonate are leading to economic advantages by decreasing formulation costs, while mechanical properties are maintained or further enhanced.

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*Omya Calcium Carbonate in LVT allow producers to substantially reduce raw material costs and improve the quality of their flooring systems*

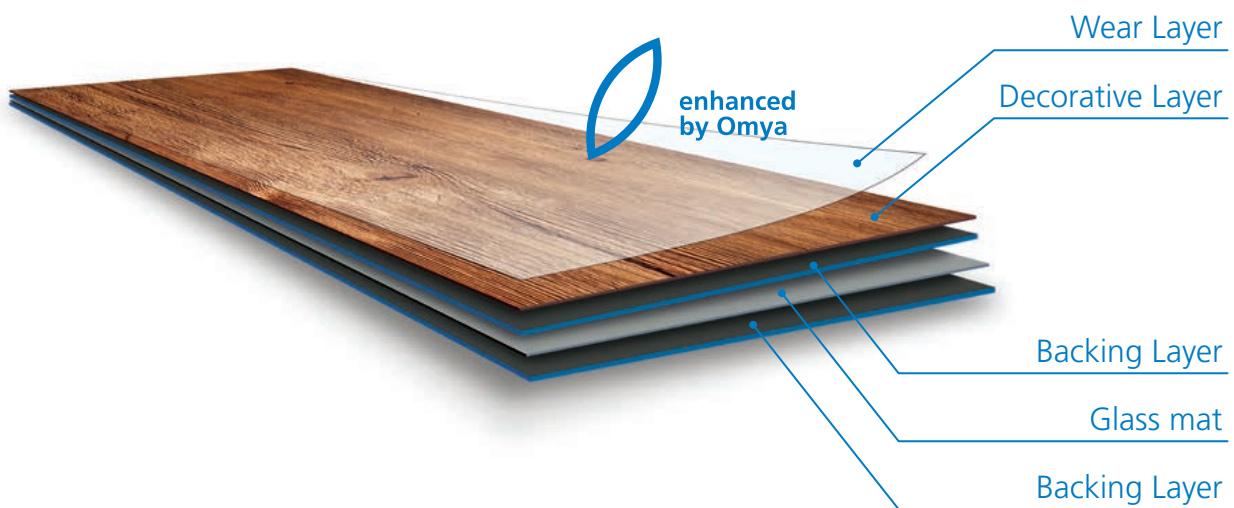




# We offer high-performing Calcium Carbonate for all LVT systems

Omya Calcium Carbonate incorporated on a typical LVT multi layer structure.

Calcium Carbonate is used in the backing layers to fulfill the high requirements of LVT producers.



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## Key Benefits for LVT Producers

- *Better economics: reduced overall formulation costs*
- *Higher quality effect due to increased weight*
- *Improved stiffness and hardness ensuring high performance*
- *Higher dimensional stability (lower shrinkage) for enhanced quality*
- *Enhanced sound insulation properties improving quality of life*
- *Reduced carbon footprint due to the naturally occurring and renewable Calcium Carbonate*



# Solutions for flooring producers with a broad range of high-performing products

## Recommended Calcium Carbonate Grades

Our tailor-made products are able to meet the high performance requirements for various LVTs, such as:

- Rigid LVTs: using a rigid PVC backing
- Semi-rigid LVTs: using plasticized PVC in the backing

In both LVT systems Omya Calcium Carbonate is used in the backing layers on a high level of around 50-65%, whereas in the upper layers (decorative and top layers) no Calcium Carbonate is applied due to transparency requirements.

### Rigid LVT systems:

For this application we developed and offer fine and treated Calcium Carbonate grades such as Omyacarb 1T or 2T to achieve best mechanical properties at high filler levels.

### Semi-rigid LVT systems:

We recommend coarser Omya Calcium Carbonate allowing high filler levels with low plasticizer absorption and a high packing density, such as Omyacarb 10 and 15 grades.

## Calcium Carbonate used in LVT systems (backing layers)

	Type of CaCO <sub>3</sub> typically in use	Typical amount of CaCO <sub>3</sub>
Semi-rigid LVT systems	Omyacarb 10* Omyacarb 15* Omyacarb 40*	55-65%
Rigid LVT systems	Omyacarb 1T* Omyacarb 2T*	50-65%

\* subject to local availability

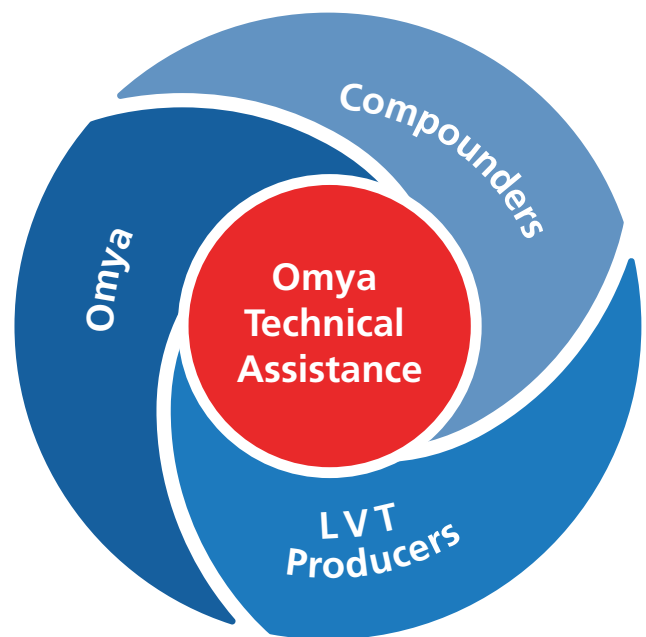
*Due to their superior quality very high Calcium Carbonate levels of 50 % and more can be achieved with Omya products*



# Omya Technical Assistance

## Competent Advice on Implementation & Cost Optimization

With our state-of-the-art technical center and sound technical expertise, Omya is able to provide competent Technical Services to PVC-related applications. Our experts assist you in every step of your manufacturing process, from application-related and analytic tests in our laboratories to hands-on support in your own production site.







We partner with  
the entire value  
chain to differ-  
entiate end  
products.



## Omya Technical Polymer Applications

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