Fibers & Nonwovens

Omya Calcium Carbonate for PP Spunmelt and Dry-Laid Nonwovens
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 our 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 Polymer Industry

For our customers, we are continuously developing and implementing innovative solutions to enhance processes and improve properties of numerous polymer applications.

Hence, Omya is now presenting a tailor-made Calcium Carbonate of high purity and with a unique surface treatment, specifically designed to add value within fibers and non-wovens production.

Omyafiber® allows manufacturers to substantially reduce raw material costs and improve the quality of their fibers and nonwoven fabrics.
Advantages in Performance, Processing & Economics with Omyafiber® 800

Key benefits for PP nonwoven manufacturers

- Substantial cost savings
- Natural cotton like haptics and softness of spunlace fabrics
- Maintained mechanical properties of high and low grammage fabrics
- Higher whiteness and opacity with Omyafiber® 800
- Reduced static charge during processing and on the final fabric
- Proven processability on industrial nonwoven lines
- No die build-up at spinneret, no extrusion pressure evolution
- Food contact approved, no skin irritation or sensitization
- Sustainable and renewable raw material

Omyafiber® 800 is added to PP nonwoven extrusion in form of a masterbatch. Due to its high-purity and unique surface-treatment, it provides significant advantages in both, masterbatch compounding and nonwoven production.
PP multifilament Fibers containing Omyafiber® 800

Addition of 10% Omyafiber®: 1 Mineral dispersion / 2 Fiber surface / 3 Fiber cross section

Key benefits for masterbatch compounding

- Marble based, fine ground calcium carbonate of high purity and whiteness
- Tailored particle size and particle distribution providing excellent dispersion
- New proprietary surface treatment for enhanced processability and optimized polymer compatibility
How to incorporate Omyafiber® 800

100% Omyafiber®

70% Omyafiber® in PP masterbatch

Virgin PP plus Omyafiber® masterbatch

Typical formulation for spunbond nonwoven fabric

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Formula</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polypropylene, PP homopolymer MFR = 25 - 35 (230°C, 2.16 kg)</td>
<td></td>
<td>84</td>
</tr>
<tr>
<td>Color Masterbatch (optional)</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Omyafiber® 800 Masterbatch (70%) PP based, Filter pressure value (FPV) at 25 µm very low</td>
<td></td>
<td>14</td>
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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 all players along the value chain. 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.

Our collaboration partners:

A member of Edana:

Household
Personal Care
Medical
Filtration
Automotive
Agro & Geotextiles
Sanitary & Hygiene
Building & Construction
The Versality of Omyafiber® 800 in the Nonwoven Industry
Learn more about Omya’s new Omyafiber® 800 Calcium Carbonate for PP spunmelt and dry-laid nonwoven application.