Powder Coating Resins
Solutions for Low Gloss Applications
To satisfy today’s architects and designers, Synthomer’s Albester SilkyMatt resins lessen gloss, producing beautiful, durable, natural-looking finishes that tend to camouflage surface defects. These high quality resins exhibit excellent batch to batch consistency and produce high quality, long-lasting coatings for great outdoor protection and appearance. Cured with ß-HAA or TGIC, Albester SilkyMatt resins for Class 1 Architectural low gloss and Automotive applications impart good outdoor durability with improved flexibility, humidity resistance and storage stability.

### As nature intended, only better

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### Standard grades for Architectural and Automotive

<table>
<thead>
<tr>
<th>Resins</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albester SilkyMatt 5540/5590</td>
<td>Cured with ß-HAA. Reference system on the market for durability and quality consistency.</td>
</tr>
<tr>
<td>Albester SilkyMatt 5510/5520</td>
<td>Cured with ß-HAA. It offers the best flexibility for PCM applications.</td>
</tr>
<tr>
<td>Albester SilkyMatt 5730/5770</td>
<td>Cured with ß-HAA. Offers an excellent balance of flexibility, outdoor durability and humidity resistance.</td>
</tr>
<tr>
<td>Albester SilkyMatt 5641/5520</td>
<td>Cured with ß-HAA. It offers the best flexibility along with improved storage stability.</td>
</tr>
<tr>
<td>Albester SilkyMatt 5600/5680</td>
<td>Cured with ß-HAA. Provides the lowest gloss in accordance with the current trend in decorative applications.</td>
</tr>
<tr>
<td>Albester SilkyMatt 5401/5901</td>
<td>TGIC based. Resin package considered standard system where TGIC is still applied.</td>
</tr>
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### Same gloss, batch after batch

Accurate manufacturing, careful workmanship, and the latest technology make for a product you can count on.

**Gloss distribution of 100 batches of Albester SilkyMatt 5540/5590**

On white coating, cured 20’ at 180 °C

![Gloss 60° results](image)

### How dry-mixing works

By dry-mixing two powder coatings with contrasting structures and reactivities, a formulator can manipulate a powder coating’s performance and level of gloss. The typical sparkling effect of dry-blended powder coatings can be controlled with additives or by adjusting the particle size distribution.
As a leading supplier of systems for low gloss powder coating, Synthomer provides a wide range of resins to meet exacting performance and gloss specifications. Systems are available in two levels of outdoor durability to satisfy GSB and Qualicoat Class 1 or 2 architectural requirements. Gloss levels from dead matte up to 50 units can be achieved.

The range allows formulation with dry-blend or oneshot technologies, using various chemistries, such as TGIC-free, TGIC, polyurethane and acrylic curatives. Our highly skilled technicians will help you make the best use of Synthomer standard or customized products.

Benefits of Albester SilkyMatt

- Various technologies available
- Qualicoat Classes 1 and 2/GSB “Standard” and “Master” grades available
- Excellent quality consistency
- High level of application reproducibility
- Large range of gloss levels from dead matte up to 50 units of gloss

Consistent gloss under variable application conditions

Multiple products with different curing agents, applied at several thicknesses under variable curing conditions, result in remarkably consistent gloss levels.

Gloss variations under a range of application conditions

<table>
<thead>
<tr>
<th>Thickness</th>
<th>Albester SilkyMatt 5401/5901</th>
<th>Albester SilkyMatt 5440/5590</th>
</tr>
</thead>
<tbody>
<tr>
<td>75 μm</td>
<td>20° at 180 °C</td>
<td>20° at 180 °C</td>
</tr>
<tr>
<td>110 μm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>140 μm</td>
<td></td>
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</tr>
</tbody>
</table>
GSB Master and Qualicoat Class 2
Architectural and Automotive

<table>
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<th>Resins</th>
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<tbody>
<tr>
<td>Albester SilkyMatt 6520/6580</td>
<td>Superdurable cured with ß-HAA. It offers outstanding outdoor durability and the lowest gloss. Suitable for Architectural/Automotive applications.</td>
</tr>
<tr>
<td>Albester SilkyMatt 6530/6580</td>
<td>Superdurable cured with ß-HAA. System suitable for Automotive/Transportation applications, offering outstanding outdoor durability.</td>
</tr>
<tr>
<td>Albester SilkyMatt 6550/6590</td>
<td>Superdurable cured with ß-HAA. It improves water spot resistance, enabling coatings to fulfill the most stringent requirements. Outstanding outdoor durability.</td>
</tr>
<tr>
<td>Albester SilkyMatt 6530/6570</td>
<td>Superdurable cured with ß-HAA. Excellent outdoor durability. Particularly suitable for architectural applications.</td>
</tr>
</tbody>
</table>

Low gloss, and superdurable

Synthomer’s Albester SilkyMatt Class 2 systems meet the strictest requirements for outdoor durability. These coatings exhibit long-lasting toughness and extreme hardness under variable conditions, in a variety of finishes, including very matte. Cured with ß-HAA, coatings made with Albester SilkyMatt Class 2 systems feature the lowest gloss available for architectural and automotive applications.

Synthomer Superdurable Dry Blends

Synthomer Superdurable Dry Blends Pass the Weathering Test Florida 5° south exposure – Black RAL 9005

- Standard durability
- Albester SilkyMatt 6520/6580
- Albester SilkyMatt 6530/6580
- Albester SilkyMatt 6540/6580

% of gloss retention

Exposure time [months]
### Architectural Dye Sublimation and Automotive

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<tr>
<td>Albester SilkyMatt 3115/6320</td>
<td>PUR “one shot” brings an improved weatherability, suitable for Qualicoat/GSB requirements. Also suitable for Transportation low gloss applications.</td>
</tr>
<tr>
<td>Albester SilkyMatt 3115/3600</td>
<td>PUR “one shot” improves flexibility and storage stability, suitable for Qualicoat/GSB in hot climates. Also suitable for Transportation low gloss applications.</td>
</tr>
<tr>
<td>Albester SilkyMatt 6615/6620</td>
<td>PUR superdurable “one shot” developed to enhance weatherability and suitable for Qualicoat Class 2/GSB “Master” requirements. Used for Automotive low gloss applications too.</td>
</tr>
<tr>
<td>Albester SilkyMatt 5631/5691</td>
<td>Cured with B-HAA. Dry-blend technique specifically designed for dye sublimation. Helps to improve paper release, reducing surface defects down to zero. Excellent solvent and chemical resistance.</td>
</tr>
<tr>
<td>Albester SilkyMatt 5401/5901</td>
<td>TGIC dry-blend technique. Steady presence in wood effect market. Suitable for Qualicoat/GSB.</td>
</tr>
</tbody>
</table>

### Cutting edge “one-shot” technology

Synthomer is a technical leader in polymers for the polyurethane “one shot” technique, in which two resins are combined in a single, extruded powder coating process to obtain varying levels of low gloss. These systems offer the best solutions for ink sublimation technology and are thus optimal for architectural and transportation applications.

- Excellent chemical resistance
- Non-emitting curing agent
- High Florida resistance
- Good storage stability
- Good flexibility
- Special products for dye effects

### Class 2 weathering of PUR superdurable “one-shot”

PUR superdurable “one shot” technology was specifically developed for enhanced weatherability.

### Florida 5° South exposure

Brown RAL 8014 coating based on Albester SilkyMatt 6615/6620

![Florida 5° South exposure graph](image-url)
Leading in emulsions and speciality polymers

Synthomer is one of the world’s leading suppliers of emulsion and speciality polymers supporting leadership positions in many market segments including coatings, construction, technical textiles, adhesives, paper and synthetic latex gloves. The company has its Head Office in London (UK) and provides customer focused services from operational centres in Harlow (UK), Marl (Germany), Kuala Lumpur (Malaysia), Shanghai (China) and Dubai (UAE). In June 2016 we have acquired the Monomers, Dispersions and Powders business (MDP) from Hexion with dedicated production, sales and customer service facilities in North America, Europe and South East Asia. In March 2017, we acquired the coalescing agents and Butyl Ethyl Propanediol (BEPD) business from Perstorp Oxo Belgium AB. The newly acquired businesses significantly improve our footprint to a number of speciality markets which we will continue to serve through a strong network of local technical service and sales branches, supported by regional application development and production in our key markets. We deliver the right formula, globally, individually.

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