

newadd 16022

Flow and leveling agent for semi-gloss and matt powder coatings

Product Description: newadd 16022 is a specially developed flow and leveling additive designed for semi-gloss and matt powder coatings. It provides excellent surface leveling while significantly improving coating appearance.

Suitable for a wide range of powder coating systems, newadd 16022 not only effectively reduces common surface defects, but also enhances the efficiency of matting agents, allow the formulator to reduce the dosage of both **matting waxes** and **matting curing agents** while maintaining the desired gloss level.

Key Benefits

- Reduces the required amount of matting waxes and matting curing agents.
- Produces smoother and more uniform coating surfaces.
- Significantly minimizes defects such as Pinholes, Craters, Fish-eyes and Orange peel caused by matting curing agents.
- Improves the mechanical properties of the cured coating.
- Enhances powder flow during electrostatic spraying and promotes more uniform film formation on complex substrates.

Typical Properties:

- Appearance: white powder
- Non-volatile content : 98.5%
- Active content: 80%-83%
- Bulk density: 0.4-0.45 g/cm³

Application: newadd 16022 is added during the **premix stage**, where it disperses easily with the other raw materials. It is suitable for powder coating systems based on Epoxy, Polyester, Polyurethane, Acrylic resins

Storage: Store in a dry environment at temperatures between 2°C and 30°C, away from direct sunlight and sources of ignition. Under these storage conditions, the product has a minimum shelf life of one year.

Safety: It is recommended to wear appropriate protective gloves, safety glasses, and work clothing when handling the product.

User Guide

To achieve the best results when using the powder coating flow and leveling agent “newadd 16022” for semi-gloss and matte finishes, please follow the recommendations below:

- newadd 16022 is a member of powder coating flow and leveling agents. It's not recommended as a complete replacement for matting agents.

advantages of newadd 16022:

- Enhances the effect of waxes and matting hardeners , significantly reducing the required amount of these materials in the powder coating formulation.
- Creates a completely level surface, eliminating orange peel effects and pinholes in the coating.
- Improves mechanical resistance, especially for coatings with gloss levels lower than 40%.
- No restrictions on use for various types of powder coatings, including hybrid, polyester, and polyurethane coatings.
- newadd 16022 does not affect the curing conditions of the coating powders, and its use does not necessitate changes to these conditions. However, it is recommended to re-optimize the curing conditions based on the type and percentage of resin and hardener.
- newadd 16022 does not reduce the storage stability of the coating powder or its flow during application. However, due to the reduction of matting waxes in the formulation, there might be an increased tendency for caking . To prevent this, it is advised to add an appropriate anti-caking additive to the formulation if wax is reduced or eliminated.

Initial Formulation Suggestions for Semi-Gloss and Matte Finishes (Clear Coat)

Raw material	1	2	3	4
PE(60/40) resin	48.04	43.34	21.3	9.2
EP resin	48.04	52	70.5	81
Matting hardener	1.6	2.3	5.6	7.44
newadd 16038	0.32	0.3	0.3	0.32
newadd 16022	2.1	2	2.3	2.04
Gloss% (60')	69	55	22	12.5

Initial Formulation Suggestions for Semi-Gloss and Matte Finishes (White Paint)

Raw material	1	2
PE(60/40) resin	35.6	11.63
EP resin	23.7	43.76
Matting hardener	0	3.6
PE matting wax	0.3	0
TiO ₂	19.74	20
BaSO ₄	18.03	18.16
newadd 16038	0.33	0.33
newadd 16022	2.3	2.5
Gloss5(60')	50	10

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Notes:

1. The Suggested formulations should be optimized based on the production process and raw materials used.
2. The matting hardener in the initial formulations is used at a ratio of 1:10 with epoxy resin. For other matting hardeners, the ratio and dosage should be determined and optimized in the lab. Based on curing agent TDS.
3. The initial formulations are based on hybrid system with 60/40 polyester resins. For other resin systems, the formulation should be adjusted according to the resin and curing agent ratios.