

SPHERILEX® DP-0110

DESCRIPTION

- SPHERILEX® DP-0110 (formerly known as EXP 0002-1) is a precipitated amorphous (crystalline-free) silica with unique spherical particle shape and very narrow particle size distribution.
- SPHERILEX® products are available with different particle sizes, but all grades are based on a new patented synthesis process that directly controls particle morphology during the precipitation step. As a result, this new range of silica products provides a unique balance of performance benefits.
- SPHERILEX® DP-0110 has the smallest particle size within the SPHERILEX® family of products, making it ideal for thin film applications or systems where smaller particle sized pigments are preferred to promote surface smoothness and higher 85 degree gloss. In particular, SPHERILEX® DP-0110 is ideal for achieving burnish- and scrub-resistant satin and eggshell finishes, and, when used in combination with silica matting agents, can enable deep matte, natural-looking wood coatings that have improved scratch, burnish, and mar resistance. It can also significantly improve the hardness of coil coatings.

KEY BENEFITS

- excellent mar and burnish resistance
- improves scratch resistance
- improves hardness
- high transparency
- high surface smoothness
- very good washability and scrub resistance
- low viscosity at high loading levels
- very low binder demand
- very low water/solvent demand in the grind process

EFFECT

Mar and burnish resistance



Washability and scrub resistance



Gloss reduction



Smooth Surface Profile



SUITABILITY

solventborne



direct grind



waterborne



TYPICAL APPLICATIONS

- Wood coatings
- Architectural paints
- Decorative coatings
- Coil coatings
- Plastic coatings
- Floor coatings

TECHNICAL DATA

delivery form	free-flowing powder
DOA absorption	50 ml/100g
loss on drying	< 7 %
particle size, d ₅₀	4.4 µm
pH value, 5% in water	7.5
sodium sulfate content	< 1.0 %
specific gravity	2.0
specific surface area (N ₂)	< 12 m ² /g

RECOMMENDED ADDITION LEVEL

As supplied calculated on total formulation: 1 - 10 %

PROCESSING INSTRUCTIONS

It is recommended that this product be added, as supplied, to the grind.

HANDLING & STORAGE

This product is best used within 24 months of its manufacture. Evonik precipitated silica products are extremely chemically stable. However, precipitated silicas, including this product, can absorb moisture and/or volatile organic compounds from the surrounding atmosphere. Therefore, we recommend storage in original sealed packaging and in a dry, cool place and removed from volatile organic substances. Even if a product is stored under these conditions, over periods of time the material may still pick up enough moisture to exceed the moisture content that is specified "as packaged" or at the time of packaging.

This information and all further technical advice are based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

Evonik Operations GmbH | Goldschmidtstraße 100, 45127 Essen, Germany | Telefon +49 201 173-2222 Telefax +49 201 173-1939 | www.coating-additives.com