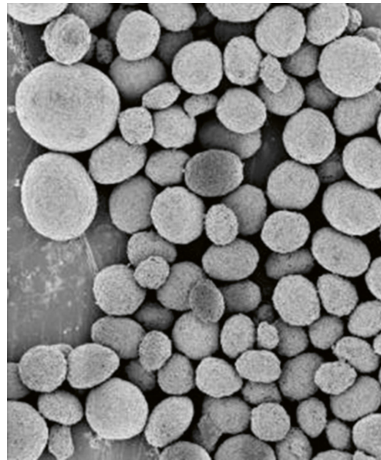


SPHERILEX® DP-0117: A novel particle that enables durable flat (matte) liquid and powder coatings



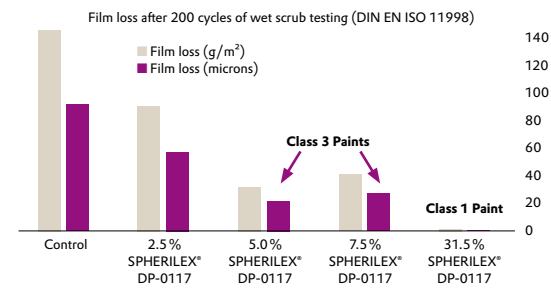
Benefits of using SPHERILEX® DP-0117 in architectural flat paints

- Wet scrub resistance
- Burnish resistance
- Scuff and stain resistance
- Coin and steel mar resistance

Benefits of using SPHERILEX® DP-0117 in matte powder coatings

- Efficient matting
- Improved durability and physical properties
- Transfer efficiency (SG = 2.0)

SPHERILEX® DP-0117 significantly improves wet scrub resistance of this 80% PVC styrene-acrylic flat paint (EN 13300 Class 5)



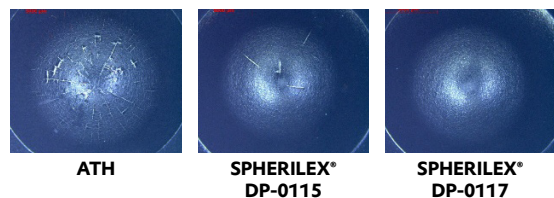
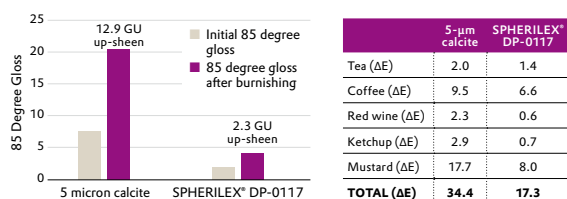
SPHERILEX® DP-0117 efficiently mattes and improves properties of this standard durable polyester HAA cured at 400°F for 10 min

Matting fillers used at 15 wt.% loading

	ATH	SPHERILEX® DP-0115	SPHERILEX® DP-0117
60° Gloss	58	42	46
Pinholes/degassing defects	Visible	Minor	Minor
Reverse impact at 30 in-lb*	Some cracking	Minor cracking	No cracking
Reverse impact at 40 in-lb*	Severe cracking	Some cracking	Minor cracking

*Tested at 75µm/3mil DFT on Q-Panel A-46 (Bare Aluminum 3003 H14, 0.025in thickness)

SPHERILEX® DP-0117 improves burnish and stain resistance of this 43% PVC acrylic flat

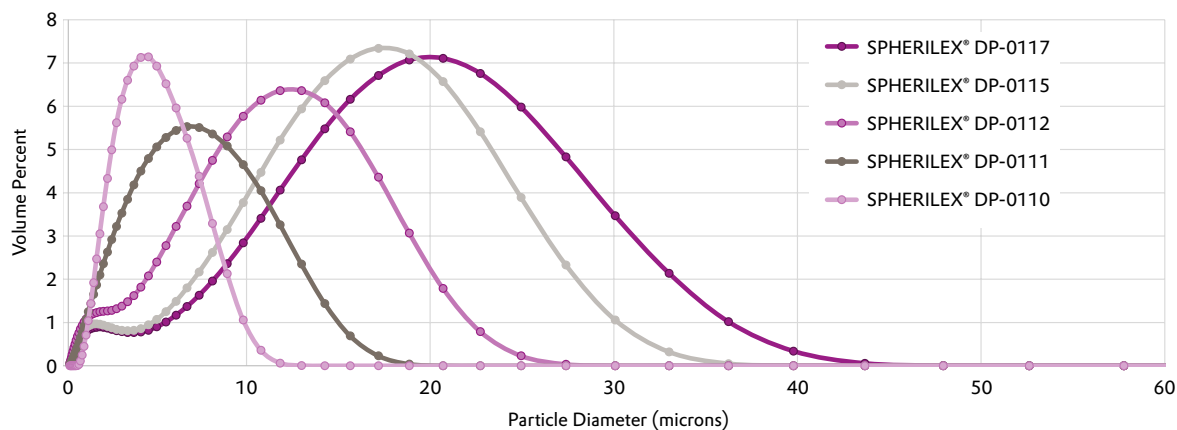


[i](#) Click here for more information!

Evonik Coating Additives offers a range of SPHERILEX® precipitated silicas designed for use in Coatings and Inks applications. All five grades are similar in composition and morphology and have very low surface areas and low oil absorption values (30-60 cc/100 g).

However, the five different grades differ in particle size. SPHERILEX® DP-0110, with the smallest particle size, offers the best transparency for non-pigmented coatings, while the largest particle size SPHERILEX® DP-0117 provides the strongest matting effect.

Typical properties of SPHERILEX® precipitated silicas for Coatings and Inks applications



PROPERTY	SPHERILEX® DP-0110	SPHERILEX® DP-0111	SPHERILEX® DP-0112	SPHERILEX® DP-0115	SPHERILEX® DP-0117
Chemistry	Silicon Dioxide	Silicon Dioxide	Silicon Dioxide	Silicon Dioxide	Silicon Dioxide
Morphology	Spherical	Spherical	Spherical	Spherical	Spherical
Moisture (%)	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7
5% pH	6.5–8.5	6.5–8.5	6.5–8.5	6.5–8.5	6.5–8.5
Sodium sulfate (%)	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0
BET surface area (m ² /g)	≤ 12	≤ 12	≤ 12	≤ 12	≤ 12
d ₅₀ (µm)	~ 4.4	~ 5.5	~ 10	~ 15	~ 18
d ₉₅ (µm)	≤ 17	≤ 20	≤ 25	≤ 30	≤ 40

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