

PERFORMANCE BENEFITS OF CAB-O-SIL® FUMED SILICA IN NAIL POLISH

Fumed silica has long been a widely-used additive in nail polish for its rheology control properties, but it can offer several additional performance benefits for formulators, as shown in the tables below.



Key Properties of Nail Polish that are Improved by Fumed Silica

Evaluation Criterion	Description	User/Manufacturer Benefit
Gloss	<ul style="list-style-type: none"> ◆ Gloss / Clarity of the film 	<ul style="list-style-type: none"> ◆ Appearance
Anti-settling	<ul style="list-style-type: none"> ◆ Ability to keep pigments and glitter suspended in the polish during storage 	<ul style="list-style-type: none"> ◆ Elimination/reduction of settling in the bottle on the store shelf ◆ More aesthetically pleasing
Flow and Leveling	<ul style="list-style-type: none"> ◆ Good flow and leveling during application (no dripping) 	<ul style="list-style-type: none"> ◆ Ease of application ◆ Uniform coverage without brush marks
Ease of Dispersion	<ul style="list-style-type: none"> ◆ Ability to disperse the fumed silica in the formulation. 	<ul style="list-style-type: none"> ◆ Facilitates manufacturing of nail polish



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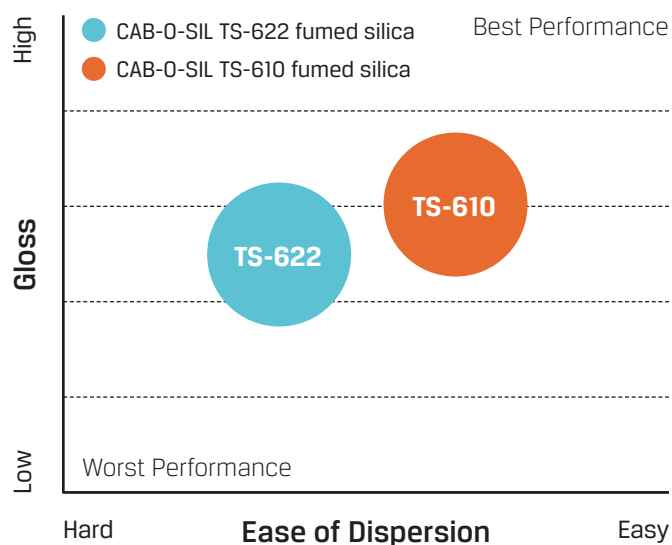
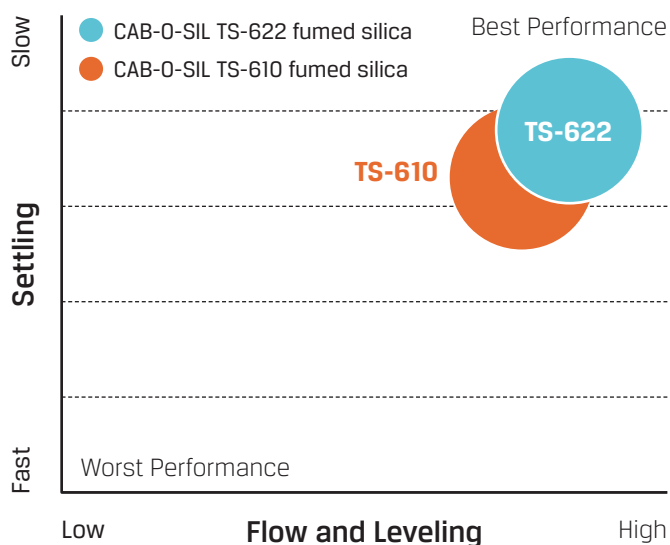
Cabot Fumed Silica Selection

Fumed Silica Product Product Characteristics

CAB-O-SIL TS-622	<ul style="list-style-type: none"> ◆ Excellent anti-settling properties ◆ Very good flow and leveling performance 	<ul style="list-style-type: none"> ◆ Moderately easy to disperse, resulting in slightly lower gloss than CAB-O-SIL TS-610 fumed silica
CAB-O-SIL TS-610	<ul style="list-style-type: none"> ◆ Easy to disperse ◆ High gloss 	<ul style="list-style-type: none"> ◆ Very good flow and leveling performance ◆ Very good anti-settling properties

Fumed Silica Performance Map

For toluene and nitrocellulose based nail polish formulations



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