



Dow Corning® HMB-0221 Silicone Additive

Improved Quality, Feel and Appearance in Automotive Interiors

Features & Benefits

- Pelletized concentrate
- Contains ultra-high-molecular-weight siloxane polymer
- Density: 0.9 g/cm³
- Strongly improves scratch resistance
- Does not exudate
- Improves UV resistance
- Ages without surface changes

As the use of plastics increases in automotive interiors, aesthetics and long-term performance of those polymers have become important concerns. Consumers expect car interiors to maintain their look and feel throughout the ownership of their cars — whether they are matte and textured surfaces or glossy, piano-black finishes.

Dow Corning HMB-0221 Additive helps improve long-lasting anti-scratch properties of automotive interiors, by offering improvements in:

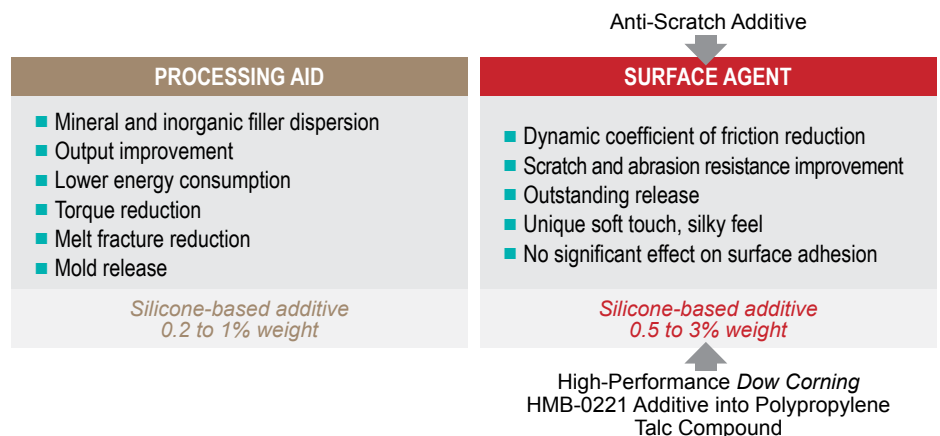
- Quality
- Aging
- Touch and feel aesthetics
- Reduced dust buildup
- Design
- Virtual aesthetics

These improved qualities can be used in a variety of interior surfaces, such as:

- Door panels
- Center consoles
- Third pillars
- Dashboards
- Instrument panels

Improved Processing and Performance

Dow Corning HMB-0221 Additive serves as both an anti-scratch surface agent and a processing aid. This offers controlled and consistent products as well as a tailor-made morphology.



Unique Compounding Improves Long-Term Performance

Dow Corning® HMB-0221 new generation additive has an enhanced compatibility with the polypropylene matrix — resulting in lower phase segregation on the final surface. This means it stays on the surface of the final plastic part with no migration or exudation, reducing fogging, VOCs or odors.

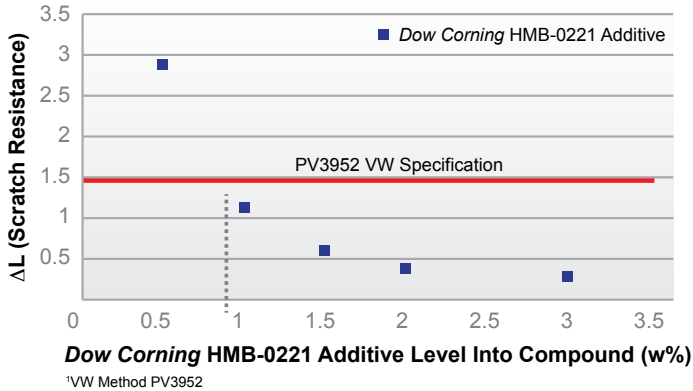


Long-Lasting, High-Efficiency Scratch Resistance

As an illustration of the importance of scratch resistance, Volkswagen has developed a specific quantitative measurement to evaluate scratch resistance¹. Using this testing method, *Dow Corning*® HMB-0221 Additive demonstrates high scratch resistance, meeting the target of ΔL under 1.5 with less than 1% weight.

Scratch Resistance Performance

Scratch Resistance Following PV3952 VW Norm:
Fine-Grained PP Copolymer 20% Talc Molded Plates vs. Amount of *Dow Corning* HMB-0221 Additive



Improved UV Aging

Silicones are taking a greater role in high-performance buildings around the world, largely because of their heat and UV resistance. Those qualities are important in automotive interiors as well. Traditional polypropylene talc compounds typically develop some degree of stickiness or tackiness after just a few months of UV exposure. *Dow Corning* HMB-0221 Additive provides high UV stability compared to competitive materials.

UV Aging Performance



Field Test Conditions	
Compound	Black polypropylene copolymer with 20% talc, impact modified, UV stabilized
Test	Kalahari-type test protocol, 60° C, 0% humidity, UV lamp (0.6W/m ²) 700 hours
Evaluation	Exudation — appearance of oil-like surface layer, tackiness/stickiness

*Plastic film applied on the plaques to show stickiness

Minimal Effect on Mechanical Properties

The inclusion of *Dow Corning* HMB-0221 Additive imparts significant benefits with only minimal effect on a copolymer's mechanical properties.



How can we help you today?

For more information about our materials and capabilities for the automotive industry, visit dowcorning.com/plascomp. For samples, contact dowcorning.com/contactus.

Images: AV21050, AV20823, AV22700

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AMPM226-14

Form No. 26-2026-01

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