DOWSIL™ 210S Additive for waterborne wood coatings

Optimal compatibility for improving mar/abrasion resistance and anti-blocking performance

Maximize your wood coating advantages

- Cost-effective and customizable slip
- Enhanced mar/abrasion resistance and anti-blocking performance
- No impact on mechanical properties
- Good compatibility with modern binders
- No impact on surface hardness or water resistance
- Easy to dose and incorporate

Achieve class-leading wood coating formulations

DOWSIL™ 210S Additive offers the improved mar/abrasion resistance and anti-blocking performance of our established additives while enhancing compatibility with modern waterborne wood coating binders. The compatibility improvement results in a reduced tendency for cratering and – depending on the binder system – less impact on gloss. These benefits enable you to extend the range of formulations where class-leading mar/abrasion/scratch resistance, slip and anti-blocking properties can be achieved.

Additionally, DOWSIL™ 210S Additive may be used alone or in combination with wax additives.

Cost-effective performance enhancement

DOWSIL™ 210S Additive is a third-generation version of our unique ultra high-molecular-weight silicone dispersion technology, which provides strong reduction in static and dynamic coefficient of friction at very low use levels.

This superior surface activity improves mar/abrasion resistance in typical wood coating formulations. DOWSIL™ 210S Additive also has shown utility in the very challenging area of achieving blocking resistance in modern waterborne wood coatings.

Fewer side effects

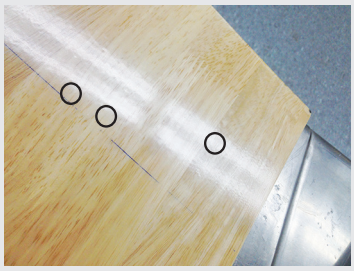
Formulators often worry about the side effects of additives, especially silicone-based materials. Dow's silicone additive portfolio, however, is based on paint-friendly silicone materials, and DOWSIL™ 210S Additive is optimized to provide:

- **No impact** on mechanical properties
- **No impact** on surface hardness
- **No impact** on water resistance

Figure 1. Compatibility: Waterborne coating binder at 0.4 wt. % active level

	Control (no additive)	Additive A from Dow	DOWSIL™ 210S Additive
Craters by drawdown (standard Q panel)	0	6	0
Craters by spray (standard wood panel)	2	7	2

Additive A from Dow



DOWSIL™ 210S Additive

Fewer craters observed with DOWSIL™ 210S Additive

Figure 2. Kinetic coefficient of friction: Clear waterborne acrylic wood coating

Test conditions: Nylon probe; normal force = 700 g; probe speed = 2 mm/s; formulation = ROSHIELD™ 3188 Acrylic Emulsion

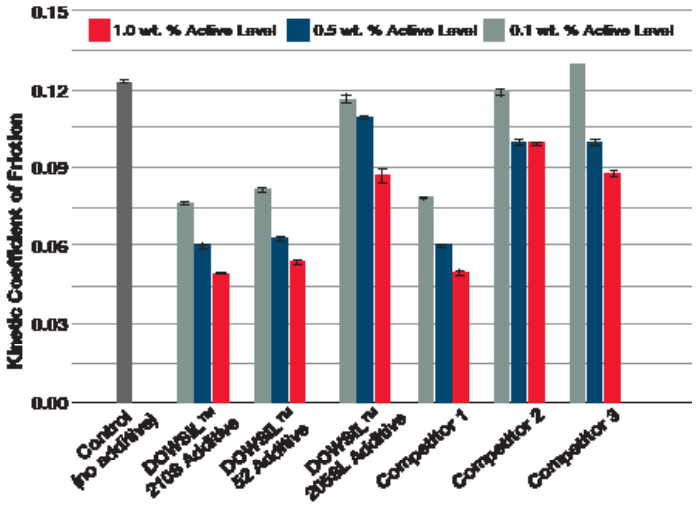
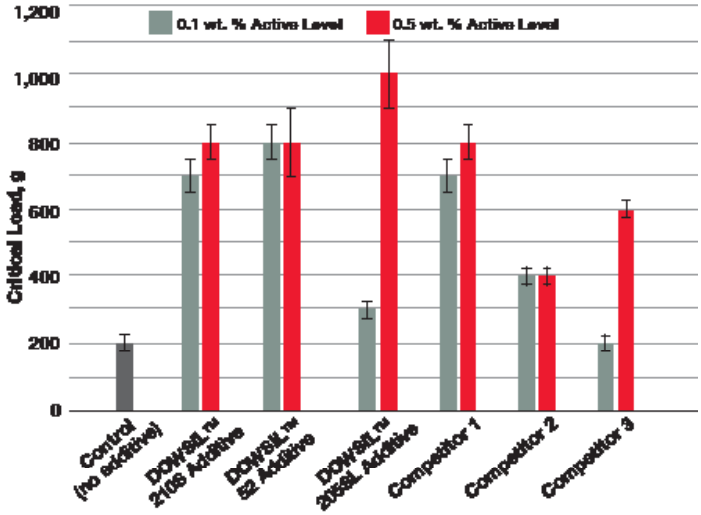


Figure 3. Mar resistance: Clear waterborne acrylic wood coating

Test conditions: Test method = ASTM D5178; formulation = ROSHIELD™ 3188 Acrylic Emulsion



For technical information and samples

For a technical data sheet and to order a sample of DOWSIL™ 210S Additive to test in your formulation, visit **dow.com/coatings.**

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