

CoatOSil™ DRI Waterborne Silicone Resin

Description

CoatOSil DRI waterborne silicone resin can help reduce water uptake and improve UV resistance in organic waterborne coating compositions. Its chemical structure enables CoatOSil DRI waterborne silicone resin to overcome the difficulties of combining silicone materials with organic waterborne resins.

CoatOSil DRI waterborne silicone resin has been shown to improve hydrophobicity and elongation properties when used as a co-binder with acrylic latexes, resulting in more flexible coatings and sealants. CoatOSil DRI waterborne silicone resin can also be considered as a sole binder when maximum thermal and UV stability is a priority. When applied alone, CoatOSil DRI waterborne silicone resin cures at room temperature to form an elastomeric film.

Performance Properties (Key Features/Typical Benefits)

- Enhanced water, UV, and mar resistance.
- Formation of a more flexible coating as a co-binder with acrylic latex, without detrimental effect to adhesion, re-coatability, and dirt pick up.
- Compatibility with a variety of waterborne polymer systems, including many:
 - Acrylics
 - PUDs
 - Styrene Acrylics
 - Alkyds
 - Epoxies

Typical Physical Properties

CoatOSil DRI waterborne silicone resin is a low viscosity emulsion with the following typical characteristics:

Property	Value
Appearance	White, opaque liquid
Actives Content, %wt	~ 45%
Density (gm/cm ³) at 25 °C	1.1
Viscosity at 25 °C	~ 20 cps
pH	~ 11
Particle Size (nm)	~ 120

Typical properties are average data and are not to be used as or to develop specifications.

Recommended Applications/Basic Uses

- Architectural Coatings
- Wood Coatings
- Concrete Coatings
- Roof Coatings

General Considerations for Use

Typical dosages of CoatOSil DRI waterborne silicone resin are between 5% and 30% when used as a co-binder in latex systems to improve water and UV resistance. To aid in evaluating the silicone for use as a sole binder, the typical physical properties of the neat product applied via drawdown and cured at room temperature are shown below:

Typical Properties of Cured Film	Value
Tensile (psi)	~ 500
Elongation (%)	~ 450
Hardness (Shore A)	~ 30
Elastic Recovery (%)	> 90%
Tg (measured by DSC)	- 41 °C

Typical properties are average data and are not to be used as or to develop specifications.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

Contact Information

Email

commercial.services@momentive.com

Telephone

Americas	Latin America	EMEAI- Europe, Middle East, Africa & India	ASIA PACIFIC
+1 800 295 2392	Brazil	Europe	China
Toll free*	+55 11 4534 9650	+390510924300	800 820 0202
+704 805 6946	Direct Number	Direct number	Toll free
Direct Number			+86 21 3860 4892

All American countries	Mexico +52 55 2169 7670 Direct Number	India, Middle East & Africa + 91 44 71212207 Direct number	Direct number Japan +81 3 5544 3111 Direct number Korea +82 2 6201 4600
-------------------------	--	--	--

For literature and technical assistance, visit our website at: www.momentive.com

DISCLAIMER:

THE MATERIALS, PRODUCTS AND SERVICES OF MOMENTIVE PERFORMANCE MATERIALS INC. AND ITS SUBSIDIARIES AND AFFILIATES (COLLECTIVELY “SUPPLIER”), ARE SOLD SUBJECT TO SUPPLIER’S STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SUPPLIER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING ITS PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN SUPPLIER’S STANDARD CONDITIONS OF SALE, SUPPLIER AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of Supplier’s materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating Supplier’s products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of Supplier’s standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Supplier. No statement

contained herein concerning a possible or suggested use of any material, product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Supplier covering such use or design, or as a recommendation for the use of such material, product, service or design in the infringement of any patent or other intellectual property right.

*CoatOSil™ ist ein Markenname der Momentive Performance Materials Inc.

The use of the "™" symbol designates registered or unregistered trademarks of Momentive Performance Materials Inc. or its affiliated companies. Momentive and the Momentive logo are trademarks of Momentive Performance Materials Inc.