

Dow hair and skin care

Selection guide



How to use this guide

To use the following tables, simply select an application and review the benefits most important for your formulation. Then select the appropriate Dow solution. Alternatively, if you want an even quicker and easier answer, refer to the table summary of product families for hair and skin care.

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Silky smoothness. Pigment dispersion. Shine. Soft, smooth feel. Combability. These are just some of the qualities your customers are looking for from your hair and/or skin care products. The properties of silicones make them well suited to provide many of these qualities. The DOWSIL™ brand can provide you with a dependable supply of high-quality, innovative silicone hair and skin care products.

Solutions that create beauty with impact

Dow's strength in silicon-based technology and our more than 30 years of experience in the beauty and personal care industry have allowed us to develop truly innovative solutions that can help you solve your toughest formulation challenges and create

increasingly unique, high-value products for your customers. We know, too, that you want your products to stand out in today's fiercely competitive market. Our know-how can help you achieve that goal. With our silicone solutions, we can help you enhance – and even expand – your current product lineup.

For instance, our silicone technologies for hair and skin care products provide sensory characteristics you can measure and a difference your customers will notice. Our solutions can help you deliver other unique benefits as well – and develop surprisingly fresh new categories within these product families. Let us show you how.

Hair care solutions

When it comes to hair care formulations, your customers want increasingly new and improved products for cleaning and conditioning their hair. Plus, products must be tailored for different hair types and hairstyles as well as for different age groups, ethnicities, cultures, climates and desires.

Shampoos – With solutions from Dow, you can create shampoos that make both wet and dry combing easier. You can respond to your customers' desire for shampoos that make hair soft, silky and smooth to the touch. And, you can provide shampoos that protect color applications and counteract damage caused by overuse of hair dryers and curling irons.

Conditioners – Increasingly, your customers seek conditioners that moisturize, manage and style without leaving their hair heavy, limp, dull or greasy. They expect conditioners that detangle and improve hair softness and smoothness, both during rinsing and after drying. Plus, they want conditioners that protect color applications, repair damaged hair and enhance the shininess and manageability of their hair. Dow offers you the solution a series of lightweight rinse-off and leave-in conditioning materials that can help you meet these needs – and more.



DOWSIL™ Brand

Look to Dow's application expertise for personalized service and support:

- For new materials and sample formulations during product development
- For custom or unique formulations
- For product and process assistance and troubleshooting

Skin care solutions

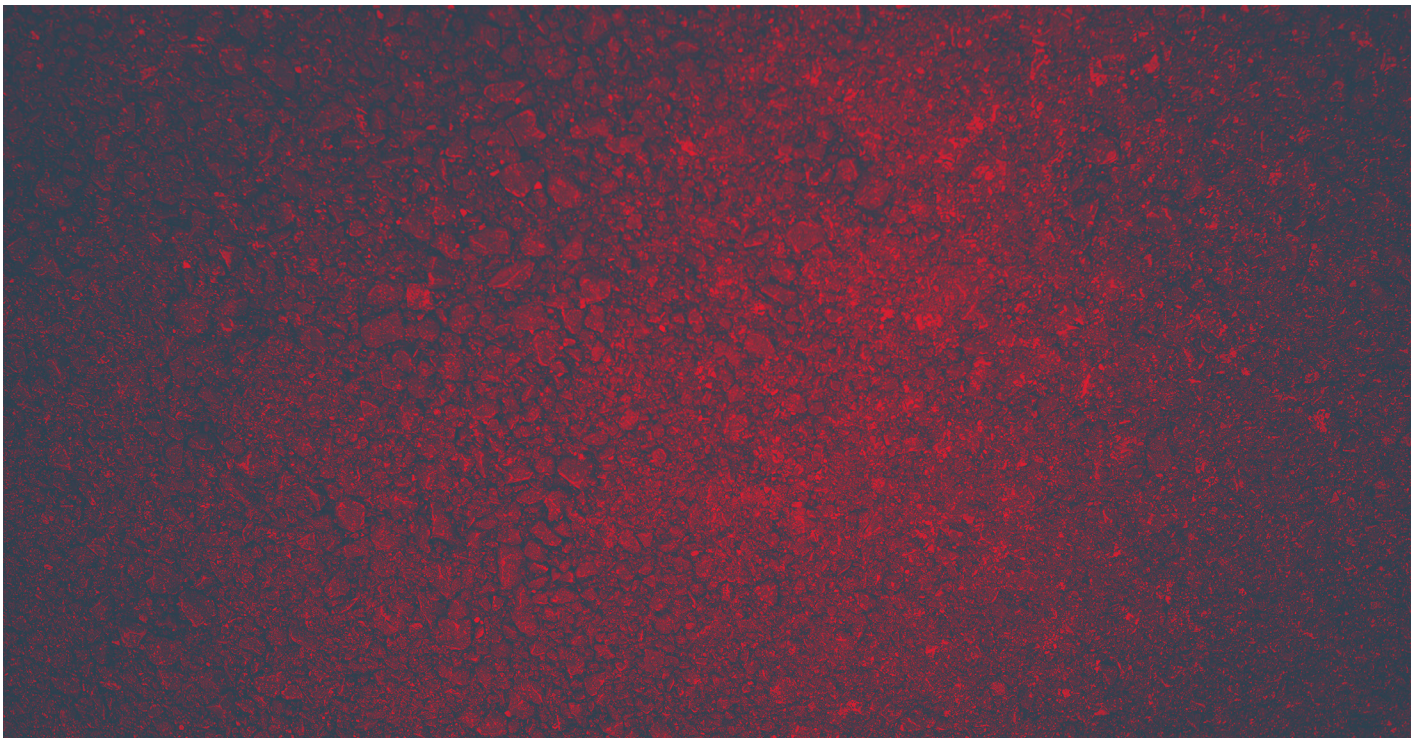
Today's consumers also expect increasingly sophisticated products that answer all their perceived skin care needs. Dow's expertise in this market can provide you with unique knowledge and capabilities. Our understanding of emerging technologies, coupled with our experience in the personal care industry, enable us to offer innovative solutions that will help you enhance and expand your customers' current skin care product selections.

Skin care, color cosmetics, and face and shower products – With solutions from Dow, you can provide products that spread easily for smoother, easier application, with even pigment dispersion – products that retain their features and last longer than others currently on the market. Dow can help you minimize the tacky or greasy feel of other ingredients and create products that are light, soft and exhibit a silky feel, both during and after application.

We're here to serve you

Whether you seek industry-leading innovation or greater cost efficiency, Dow can help. DOWSIL™ solutions deliver specialty materials, collaborative problem-solving and innovation support tailored to your needs. See details at www.dow.com.

Learn how Dow can help you surpass the limits of current technology to develop beauty and personal care products with unique benefits and market-leading capabilities. Find the best solution to meet these and many other key needs. Consult the selection tables on the subsequent pages. Contact us for technical support.



Skin care and color cosmetics

| | Smooth feel/emolliency | Improved spreading | Reduced greasiness | Non-occlusive | Moisturization | Quick absorption | Sebum absorption | Thickening/rheology modification | Long lasting/substantivity | Film barrier properties | Anti-pigment transfer | SPF enhancement |
|--|------------------------|--------------------|--------------------|---------------|----------------|------------------|------------------|----------------------------------|----------------------------|-------------------------|-----------------------|-----------------|
| PHYSICAL OR SENSORY ATTRIBUTE | | | | | | | | | | | | |
| SILICONE FLUIDS | | | | | | | | | | | | |
| Volatile caprylyl methicone | | | | | | | | | | | | |
| DOWSIL™ FZ-3196 Fluid | ● | ● | ● | ● | | ● | | | | | | |
| Specials | | | | | | | | | | | | |
| DOWSIL™ 556 Cosmetic Grade Fluid | ● | ● | ● | ● | | | | | ● | ● | | |
| DOWSIL™ PH-1560 Glossy Fluid | | ● | | | | | | | ●● | | ●● | |
| DOWSIL™ 593 Fluid | | | | ● | | | | | ● | ● | | |
| DOWSIL™ RSN-0749 Resin | | | | ● | | | | | ●● | ● | ●● | |
| DOWSIL™ MQ-1600 Resin | | | | ● | | | | | ●● | ● | ●● | ● |
| DOWSIL™ MQ-1640 Flake Resin | | | | ● | | | | | ●● | ● | ● | ●● |
| DOWSIL™ 670 Fluid | | | | ● | | | | | ●● | ● | ● | ● |
| DOWSIL™ 680 ID Fluid | | | | | | | | | ●● | ●● | ● | |
| DOWSIL™ 5562 Carbinol Fluid | ● | ● | ● | ● | ● | | | | | | | ● |
| DOWSIL™ FA 4001 CM Silicone Acrylate | | | | ● | | | ● | | ●● | ●● | ●● | |
| DOWSIL™ FA 4002 ID Silicone Acrylate | | | | ● | | | ● | | ●● | ●● | ●● | |
| DOWSIL™ VM-2270 Aerogel Fine Particles | | | | | | | ●● | ●● | | | | |
| Volatile dimethyl | | | | | | | | | | | | |
| XIAMETER™ PMX-0245 Cyclopentasiloxane, XIAMETER™ PMX-0246 Cyclohexasiloxane | | ● | ● | ● | | ●● | | | | | | |
| XIAMETER™ PMX-200 Silicone Fluid 1.0-2.0 cSt | | ● | ● | ● | | ●● | | | | | | |
| XIAMETER™ PMX-1184 Silicone Fluid | | ● | ● | ● | | ●● | | | | | | |
| Low and medium viscosity | | | | | | | | | | | | |
| XIAMETER™ PMX-200 Silicone Fluid 5, 6, 10, 20 cSt | ● | ● | ● | ● | | ● | | | | | | |
| XIAMETER™ PMX-200 Silicone Fluid 50-1,000 cSt | ● | ● | ● | ● | | | | | | | | |
| SILICONE POLYETHERS | | | | | | | | | | | | |
| DOWSIL™ 2501 Cosmetic Wax | ● | ● | ● | | ● | | | | | | | |
| SILICONE EMULSIFIERS | | | | | | | | | | | | |
| DOWSIL™ 5200 Formulation Aid | ● | ● | | | | | | | ●● | ●● | | |
| DOWSIL™ ES-5300 Formulation Aid | ●● | ● | | | | | | ● | | | | |
| DOWSIL™ ES-5612 Formulation Aid | | | | | | | | ● | ●● | | | |
| DOWSIL™ ES-5226 DM Formulation Aid | | | | | | | | ● | ●● | | | |
| DOWSIL™ ES-5227 DM Formulation Aid | | | | | | | | ● | ● | | | |
| DOWSIL™ 5225C Formulation Aid | | ● | ● | ● | | ● | | | | ● | | |
| DOWSIL™ 9011 Silicone Elastomer Blend | | ● | ● | ● | | ● | | | | | | |
| DOWSIL™ BY 11-030 Emulsifier/Gelling Agent | | ● | ● | ● | | | | ● | | | | |
| DOWSIL™ BY 25-337 | | ● | ● | ● | | | | ● | | | | |
| DOWSIL™ FZ-2233 | ● | | | ● | | | | | ● | ● | | |
| XIAMETER™ OFX-5329 Fluid | | ● | | | | ● | | | | | | |
| ACULYN™ 2051 Rheology Modifier | | ● | ● | | | | | ●● | | | | |
| SILICONE GUM BLENDS | | | | | | | | | | | | |
| Gum in cyclics | | | | | | | | | | | | |
| XIAMETER™ PMX-1411 Fluid, XIAMETER™ PMX-1501 Fluid | ● | ● | ● | ● | | ● | | | ●● | ● | | |

● = Good fit ●● = Excellent fit

Skin care and color cosmetics

| | Smooth feel/ emolliency | Dry, powdery feel | Improved spreading | Reduced greasiness | Non-occlusive | Moisturization | Quick absorption | Sebum absorption | Thickening/rheology modification | Long lasting/ substantivity | Film barrier properties | Anti-pigment transfer | SPF enhancement |
|---|----------------------------|-------------------|-----------------------|-----------------------|---------------|----------------|------------------|------------------|-------------------------------------|--------------------------------|----------------------------|--------------------------|-----------------|
| PHYSICAL OR SENSORY ATTRIBUTE | | | | | | | | | | | | | |
| SILICONE GUM BLENDS (continued) | | | | | | | | | | | | | |
| Gum in fluids | | | | | | | | | | | | | |
| XIAMETER™ PMX-1403 Fluid, XIAMETER™ PMX-1503 Fluid | ● | ● | ● | ● | | | | | ●● | ● | | | |
| DOWSIL™ CB-1556 Fluid | ● | ● | ● | ● | | | | | ●● | ● | | | |
| Gum in isoparaffin | | | | | | | | | | | | | |
| DOWSIL™ BY 25-320 | ● | | ● | ● | ● | | | | | ● | ● | | |
| SILICONE METHYL SILOXANES | | | | | | | | | | | | | |
| DOWSIL™ 2502 Cosmetic Fluid | ● | | | | | ● | | | | ●● | ● | | ●● |
| DOWSIL™ 2503 Cosmetic Wax | ● | | ● | | | ● | | | ● | ● | ●● | | ●● |
| DOWSIL™ AMS-C30 Wax | ● | | | | | ●● | | | ●● | | | | ● |
| DOWSIL™ 580 Wax | ● | | ● | | | | | | ● | | | | |
| DOWSIL™ SW-8005 C30 Resin Wax | ● | | | | | | | | ●● | ● | | ● | |
| SILICONE EMULSIONS | | | | | | | | | | | | | |
| DOWSIL™ HMW 2220 Non-Ionic Emulsion | ● | | | | ● | | ● | | ●● | ●● | ●● | | |
| DOWSIL™ 9509 Silicone Elastomer Suspension | | ●● | | | ● | | | ●● | ● | | | | |
| DOWSIL™ 7-3101 Elastomer Blend HIP Emulsion | ● | ● | | ● | ● | | | | | | | | |
| DOWSIL™ 7-3111 Petrolatum Blend HIP Emulsion | ● | | | ● | | ● | | | | | ● | | |
| SILICONE ELASTOMERS | | | | | | | | | | | | | |
| XIAMETER™ PMX-9027 Fluid | ● | ● | ● | ● | ● | | ● | | | | ● | | |
| DOWSIL™ 9040 Silicone Elastomer Blend | ● | ●● | | ● | ● | | | | ●● | | | | ● |
| DOWSIL™ 9041 Silicone Elastomer Blend | ● | | | ● | ● | | | | ● | | | | |
| DOWSIL™ 9045 Silicone Elastomer Blend | ● | ● | | ● | ● | | | | ●● | | | | |
| DOWSIL™ EL-9240 Silicone Elastomer Blend | ● | ● | | ● | | | ● | | ●● | | | | |
| DOWSIL™ 9546 Silicone Elastomer Blend | ● | ●● | | ● | ● | | | | ●● | | | | |
| DOWSIL™ FB-9586 Silicone Elastomer Blend ¹ | ● | ● | | ● | ● | | | | ● | ● | | | |
| DOWSIL™ 2-3040 Blend ¹ | ● | ● | | ● | | | | | ● | | | | |
| DOWSIL™ 9506 Powder | | ●● | | ● | ● | | | ● | ●● | | | | |
| DOWSIL™ 9701 Cosmetic Powder | | ●● | | ● | ● | | | ● | ●● | | | | |
| DOWSIL™ EP-9801 Hydro Cosmetic Powder | | ●● | | ● | ● | | | ● | | | | | |
| DOWSIL™ EL-8040 ID Silicone Organic Blend | | ●● | | ● | ● | | ● | | ●● | | | ● | |
| DOWSIL™ EL-8050 ID Silicone Organic Elastomer Blend | ● | ● | | ● | | | ● | | ●● | | | ● | |
| DOWSIL™ EL-8051 IN Silicone Organic Elastomer Blend | ●● | ● | | ● | | | | | ● | | | | |
| DOWSIL™ EL-8052 IH Silicone Organic Elastomer Blend | ● | ● | | ● | | | | | ● | | | | |
| CUSTOM BLENDS | | | | | | | | | | | | | |
| XIAMETER™ PMX-3021 Fluid ¹ | ● | | ● | ● | | ● | ● | | | | | | |
| XIAMETER™ PMX-3031 Fluid ¹ | ● | | | ● | | ● | | ● | | | ● | | |
| XIAMETER™ PMX-3050 Fluid ¹ | ● | | | ● | | ● | | | ● | | ● | | |

¹ Not sold in China.

● = Good fit ●● = Excellent fit

Skin care and color cosmetics

- Improve spreadability for easier application
- Provide a breathable, wash-off-resistant barrier that improves the lasting power and effectiveness of skin protectants
- Reduce the tacky or greasy feel of other ingredients
- Create a light, nongreasy, soft and silky feel
- Promote even pigment dispersion

Skin care – Wash and shower

| | Smooth feel | After-feel | Foam stabilization | Soft feel |
|---|-------------|------------|--------------------|-----------|
| PHYSICAL OR SENSORY ATTRIBUTE | | | | |
| SILICONE GUM BLENDS | | | | |
| Gum in cyclics | | | | |
| XIAMETER™ PMX-1411 Fluid | ● | | | ● |
| XIAMETER™ PMX-1501 Fluid | ● | | | ● |
| Gum in fluids | | | | |
| XIAMETER™ PMX-1403 Fluid | ● | | | ● |
| XIAMETER™ PMX-1503 Fluid | ● | | | ● |
| Custom blend fluid | | | | |
| XIAMETER™ PMX-3031 Fluid | ● | ● | | |
| SILICONE POLYETHERS | | | | |
| XIAMETER™ OFX-0193 Fluid | | | ● | ● |
| XIAMETER™ OFX-5324 Fluid | | | ● | ● |
| XIAMETER™ OFX-5330 Fluid | | | ● | ● |
| DOWSIL™ 2501 Cosmetic Wax | | | ●● | ● |
| ALKYL METHYL SILOXANES | | | | |
| DOWSIL™ 2502 Cosmetic Fluid | ● | ● | ●● | ● |
| DOWSIL™ 2503 Cosmetic Wax | ● | ● | | ● |
| DOWSIL™ AMS-C30 Wax | ● | ●● | | ● |
| SILICONE EMULSIONS | | | | |
| XIAMETER™ MEM-1785 Emulsion ¹ | ● | | ● | ● |
| XIAMETER™ MEM-1352 Emulsion | ● | | ● | ● |
| DOWSIL™ HMW 2220 Non-Ionic Emulsion | ●● | | ● | ● |
| DOWSIL™ 9509 Silicone Elastomer Suspension | ●● | | ● | |
| DOWSIL™ 7-3111 Petrolatum Blend HIP Emulsion | ● | ● | ● | ● |
| Low and Medium Viscosity | | | | |
| XIAMETER™ PMX-200 Silicone Fluid 1,000-60,000 cSt | ● | | | ● |

¹ Not sold in China.

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●● = Excellent fit



Skin care – Wash and shower

- Provide a soft, silky feel during and after application
- In soap bars, silicones provide less weight loss and less mushiness

Hair care – Shampoo

| | Combing dry | Combing wet | Wet slip feel | Soft feel | Transparent system | Color protection | Thermal protection | Reduce flyaway | Shine | Bodifying volume |
|---|-------------------------------|-------------|---------------|-----------|--------------------|------------------|--------------------|----------------|-------|------------------|
| | PHYSICAL OR SENSORY ATTRIBUTE | | | | | | | | | |
| SILICONE FLUIDS | | | | | | | | | | |
| Amino fluid | | | | | | | | | | |
| DOWSIL™ AP-8087 Fluid | | ● | ● | ● | | | ● | ● | ● | |
| DOWSIL™ 8500 Conditioning Agent | | ● | ● | ● | ● | | ● | ● | | |
| DOWSIL™ 2-8566 Amino Fluid | | ● | ● | ● | ● | | ● | ● | | |
| High viscosity | | | | | | | | | | |
| XIAMETER™ PMX-200 Silicone Fluid 60,000 cSt, 100,000 cSt | ● | | | | | | | | ● | |
| XIAMETER™ PMX-200 Silicone Fluid 300,000 cSt, 500,000 cSt | ●● | | | | | | | | ● | |
| SILICONE POLYETHERS | | | | | | | | | | |
| XIAMETER™ OFX-0193 Fluid | | ● | ● | | ● | | | | | |
| XIAMETER™ OFX-5324 Fluid | | ● | ● | | ● | | | ● | | ● |
| XIAMETER™ OFX-5330 Fluid | | ● | ● | | ● | | | ● | ● | ● |
| SILICONE EMULSIONS | | | | | | | | | | |
| Amine | | | | | | | | | | |
| XIAMETER™ MEM-0939 Emulsion, XIAMETER™ MEM-0949 Emulsion, XIAMETER™ MEM-0959 Emulsion | ● | ● | ● | ● | | ● | ● | ● | ● | |
| XIAMETER™ MEM-8168 Emulsion | | ● | ● | ● | ● | ● | | ● | ● | |
| XIAMETER™ MEM-8177 Emulsion | | ● | | ● | ● | ● | | ● | ● | |
| XIAMETER™ MEM-8194 Emulsion | | ● | ● | ● | ● | ● | ● | ● | ● | |
| XIAMETER™ MEM-8299 Emulsion | ● | ● | | ● | | | | ● | | |
| DOWSIL™ 5-7113 Silicone Quat Microemulsion | | ● | ● | ● | ● | | ● | ● | ● | ● |
| DOWSIL™ CE-1689 Smoothing Emulsion | ●● | ●● | ● | ● | | ● | | | | |
| DOWSIL™ CE-8170 AF Microemulsion | ● | ● | | ● | ● | | | ● | ● | ● |
| DOWSIL™ CE 8401 Emulsion ¹ | | ●● | ●● | ● | | | | ● | ● | |
| DOWSIL™ CE- 8411 Smooth Plus Emulsion | ● | ●● | ●● | ● | | | | | | ● |
| Dimethyl | | | | | | | | | | |
| XIAMETER™ MEM-1352 Emulsion | ● | | | | | | | | ● | |
| XIAMETER™ MEM-1391 Emulsion | | ● | ● | | ● | | | | ● | |
| XIAMETER™ MEM-1691 Emulsion | | ● | | ● | | | | | | |
| XIAMETER™ MEM-1870 Emulsion | ● | | | | ● | | | | | |
| XIAMETER™ MEM-7137 Emulsion | ● | ●● | ● | | | ● | | | ● | |
| XIAMETER™ MEM-7138 Emulsion | ● | ● | ● | | | | | | ● | |
| XIAMETER™ MEM-1785 Emulsion ¹ | ●● | ● | ● | ● | | | | | | |
| XIAMETER™ MEM-1788 Emulsion ¹ | ●● | ● | ● | ● | | | | | | |
| DOWSIL™ HMW 2220 Non-Ionic Emulsion | ●● | | | | | | | | ● | |
| XIAMETER™ MEM-1491 Emulsion ¹ | ● | | | | | | | | ● | |
| Silicone elastomer | | | | | | | | | | |
| DOWSIL™ 9509 Silicone Elastomer Suspension | ● | | | | | | | | | ●● |
| DOWSIL™ CE-7750 Velvety Emulsion | ● | | | ●● | | | | | | |
| DOWSIL™ 7-3101 Elastomer Blend HIP Emulsion | ● | | | | | | | | | ● |

¹ Not sold in China.

● = Good fit

●● = Excellent fit

Hair care – Shampoo

- Improve wet and dry combing
- Provide softness and smoothness
- Provide color protection
- Reduce heat damage from hair dryers and curling irons



Hair care – Rinse-off conditioner

| | Combing dry | Combing wet | Wet slip feel | Soft feel | Color protection | Thermal protection | Reduce flyaway | Shine | Bodifying volume | Long lasting |
|--|-------------|-------------|---------------|-----------|------------------|--------------------|----------------|-------|------------------|--------------|
| PHYSICAL OR SENSORY ATTRIBUTE | | | | | | | | | | |
| SILICONE FLUIDS | | | | | | | | | | |
| Volatile caprylyl | | | | | | | | | | |
| DOWSIL™ FZ-3196 Fluid | | | | ● | | | | | | |
| Amino fluid | | | | | | | | | | |
| DOWSIL™ AP-8087 Fluid | ● | ●● | ●● | ● | ● | ● | ● | ● | | ● |
| DOWSIL™ 8500 Conditioning Agent | ● | ●● | ● | ● | ● | ● | ● | | | ● |
| DOWSIL™ 2-8566 Amino Fluid | ● | ●● | ● | ● | ● | ● | ● | | | ● |
| Specials | | | | | | | | | | |
| DOWSIL™ 556 Cosmetic Grade Fluid | | ● | | | | | | ● | | |
| DOWSIL™ RSN-0749 Resin | | | | | | | ● | ● | | ● |
| DOWSIL™ 593 Fluid | | | | | | | ● | ● | | ● |
| DOWSIL™ 2-2078 Fluid | | | | | ● | ● | ● | ● | | ● |
| Volatile dimethyl | | | | | | | | | | |
| XIAMETER™ PMX-0245 Cyclopentasiloxane, XIAMETER™ PMX-0246 Cyclopentasiloxane | | ● | ● | | | | | | | |
| Low and medium viscosity | | | | | | | | | | |
| XIAMETER™ PMX-200 Silicone Fluid 5, 10, 20 cSt | | ● | ● | | | | | ● | | |
| XIAMETER™ PMX-200 Silicone Fluid 50, 100, 200, 350, 500, 1000 cSt | ● | | | | | | | ● | | |
| High-viscosity fluid blends | | | | | | | | | | |
| XIAMETER™ PMX-9111 Fluid | ● | ●● | ●● | | | | | ● | | |
| SILICONE GUM BLENDS | | | | | | | | | | |
| Gum in cyclics | | | | | | | | | | |
| XIAMETER™ PMX-1401 Fluid, XIAMETER™ PMX-1411 Fluid, XIAMETER™ PMX-1501 Fluid | ● | ● | ● | | | | | ● | | |
| Gum in fluids | | | | | | | | | | |
| XIAMETER™ PMX-1403 Fluid, XIAMETER™ PMX-1503 Fluid | ●● | ●● | | ●● | | | | ●● | | |
| DOWSIL™ CB-1556 Fluid | ● | | | | | | | ●● | | |
| Gum in isoparaffin | | | | | | | | | | |
| DOWSIL™ BY 25-320 | ● | | | | | | | ● | | |
| SILICONE EMULSIONS | | | | | | | | | | |
| Amine | | | | | | | | | | |
| XIAMETER™ MEM-0939 Emulsion, XIAMETER™ MEM-0949 Emulsion, XIAMETER™ MEM-0959 Emulsion | ● | ● | ● | ● | ● | ● | ● | ● | | ● |
| XIAMETER™ MEM-8168 Emulsion | ● | ● | ● | ● | ● | | ● | ● | | ● |
| XIAMETER™ MEM-8177 Emulsion | | ● | | ● | ● | | ● | ● | | |
| XIAMETER™ MEM-8194 Emulsion | ● | ● | ● | ● | ● | ● | ● | ● | | ● |
| XIAMETER™ MEM-8299 Emulsion | ● | | | ● | | | ● | | | |
| DOWSIL™ 5-7113 Silicone Quat Microemulsion | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| DOWSIL™ CE-1689 Smoothing Emulsion | ●● | | | ● | | | | | | |
| DOWSIL™ CE-7080 Smart Style | ●● | ●● | | | ●● | | | | | |
| DOWSIL™ CE-8170 AF Microemulsion | ● | ● | | ● | | | ● | ● | ● | |
| DOWSIL™ CE 8401 Emulsion ¹ | ● | ● | ● | ● | ● | | ● | ● | | ● |
| DOWSIL™ CE 8411 Smooth Plus Emulsion | ● | ●● | ●● | ● | ● | | | ● | ● | |

¹ Not sold in China.

● = Good fit ●● = Excellent fit

Hair care – Rinse-off conditioner

- Improve hair softness and smoothness during rinse and after dry
- Provide color protection
- Enhance hair shine

Hair care – Rinse-off conditioner (continued)

| Combing dry | Combing wet | Wet slip feel | Soft feel | Color protection | Thermal protection | Reduce flyaway | Shine | Bodifying volume | Long lasting |
|-------------|-------------|---------------|-----------|------------------|--------------------|----------------|-------|------------------|--------------|
|-------------|-------------|---------------|-----------|------------------|--------------------|----------------|-------|------------------|--------------|

PHYSICAL OR SENSORY ATTRIBUTE

SILICONE EMULSIONS

Dimethyl

| | | | | | | | | | |
|--|---|---|---|---|--|--|---|--|--|
| XIAMETER™ MEM-1352 Emulsion | ● | | | | | | ● | | |
| XIAMETER™ MEM-1391 Emulsion | ● | | | | | | ● | | |
| XIAMETER™ MEM-1691 Emulsion | | ● | ● | | | | | | |
| XIAMETER™ MEM-1870 Emulsion | ● | | | | | | | | |
| XIAMETER™ MEM-7137 Emulsion | ● | | | ● | | | ● | | |
| XIAMETER™ MEM-7138 Emulsion | ● | | | ● | | | ● | | |
| XIAMETER™ MEM-1785 Emulsion ¹ | ● | ● | ● | | | | | | |
| XIAMETER™ MEM-1788 Emulsion ¹ | ● | ● | ● | | | | | | |
| DOWSIL™ HMW 2220 Non-Ionic Emulsion | ● | | | | | | ● | | |
| XIAMETER™ MEM-1491 Emulsion ¹ | ● | | | | | | ● | | |

SILICONE EMULSIONS (continued)

Silicone elastomer

| | | | | | | | | | |
|---|---|--|----|--|--|---|---|----|--|
| DOWSIL™ 9509 Silicone Elastomer Suspension | ● | | | | | | | ●● | |
| DOWSIL™ CE-7750 Velvety Emulsion | ● | | ●● | | | | | | |
| XIAMETER™ PMX-9027 Silicone Elastomer Blend | ● | | | | | ● | ● | | |

Silicone custom blend fluids

| | | | | | | | | | |
|---------------------------------------|----|---|---|--|--|--|---|--|--|
| XIAMETER™ PMX-3021 Fluid ¹ | | ● | ● | | | | | | |
| XIAMETER™ PMX-3031 Fluid ¹ | ●● | ● | ● | | | | ● | | |
| XIAMETER™ PMX-3050 Fluid ¹ | ●● | ● | ● | | | | ● | | |

¹ Not sold in China.

● = Good fit ●● = Excellent fit

Hair care – Leave-in conditioner

| Soft feel | Color protection | Thermal protection | Reduced greasiness | Shine | Bodifying volume | Repair | Rheology modification | Styling effect | Resin plasticizer | Transparent water system | Transparent oil system |
|-----------|------------------|--------------------|--------------------|-------|------------------|--------|-----------------------|----------------|-------------------|--------------------------|------------------------|
|-----------|------------------|--------------------|--------------------|-------|------------------|--------|-----------------------|----------------|-------------------|--------------------------|------------------------|

PHYSICAL OR SENSORY ATTRIBUTE

SILICONE FLUIDS

Volatile caprylyl

| | | | | | | | | | | | |
|-----------------------|--|--|---|---|--|--|--|--|--|--|---|
| DOWSIL™ FZ-3196 Fluid | | | ● | ● | | | | | | | ● |
|-----------------------|--|--|---|---|--|--|--|--|--|--|---|

Amino fluid

| | | | | | | | | | | | |
|---------------------------------|---|---|---|---|--|--|--|--|--|--|---|
| DOWSIL™ AP-8087 Fluid | ● | ● | ● | ● | | | | | | | ● |
| DOWSIL™ 8500 Conditioning Agent | ● | ● | ● | | | | | | | | ● |
| DOWSIL™ 2-8566 Amino Fluid | ● | ● | ● | | | | | | | | ● |

Specials

| | | | | | | | | | | | |
|----------------------------------|--|--|---|----|--|--|--|---|--|--|---|
| DOWSIL™ 556 Cosmetic Grade Fluid | | | ● | ●● | | | | | | | ● |
| DOWSIL™ RSN-0749 Resin | | | | ● | | | | ● | | | ● |
| DOWSIL™ 593 Fluid | | | | ● | | | | ● | | | ● |
| DOWSIL™ 2-2078 Fluid | | | ● | ●● | | | | | | | ● |

Volatile dimethyl

| | | | | | | | | | | | |
|--|--|--|---|---|--|--|--|--|--|--|---|
| XIAMETER™ PMX-0245 Cyclopentasiloxane, XIAMETER™ PMX-0246 Cyclopentasiloxane | | | ● | ● | | | | | | | ● |
|--|--|--|---|---|--|--|--|--|--|--|---|

Low and medium viscosity

| | | | | | | | | | | | |
|---|--|--|---|---|--|--|--|--|--|--|---|
| XIAMETER™ PMX-200 Silicone Fluid 5, 10, 20 cSt | | | ● | ● | | | | | | | ● |
| XIAMETER™ PMX-200 Silicone Fluid 50, 100, 200, 350, 500, 1000 cSt | | | ● | ● | | | | | | | ● |

High-viscosity fluid blends

| | | | | | | | | | | | |
|--------------------------|--|--|--|---|--|--|--|--|--|--|---|
| XIAMETER™ PMX-9111 Fluid | | | | ● | | | | | | | ● |
|--------------------------|--|--|--|---|--|--|--|--|--|--|---|

¹ Not sold in China.

● = Good fit ●● = Excellent fit

Hair care – Leave-in conditioner (continued)

| | Soft feel | Color protection | Thermal protection | Reduced greasiness | Shine | Bodifying volume | Repair | Rheology modification | Styling effect | Resin plasticizer | Transparent water system | Transparent oil system |
|--|-----------|------------------|--------------------|--------------------|-------|------------------|--------|-----------------------|----------------|-------------------|--------------------------|------------------------|
| PHYSICAL OR SENSORY ATTRIBUTE | | | | | | | | | | | | |
| SILICONE POLYETHERS | | | | | | | | | | | | |
| XIAMETER™ OFX-0193 Fluid | | | | | | | | | | ● | ● | |
| XIAMETER™ OFX-5330 Fluid | | | | | ●● | | | | | ● | ● | |
| XIAMETER™ OFX-5324 Fluid | | | | | | | | | | ● | ● | |
| SILICONE EMULSIFIERS | | | | | | | | | | | | |
| ACULYN™ 2051 Rheology Modifier | | | | | | | | ●● | | | | |
| ALKYL METHYL SILOXANES | | | | | | | | | | | | |
| DOWSIL™ 2502 Cosmetic Fluid | | | | | | | | ● | | | | ● |
| DOWSIL™ 2503 Cosmetic Wax | | | | ● | | | | ● | | | | |
| DOWSIL™ AMS-C30 Wax | | | | | | | | ● | | | | |
| DOWSIL™ SW-8005 C30 Resin Wax | | | | ● | | | | ● | | ● | | |
| SILICONE GUM BLENDS | | | | | | | | | | | | |
| Gum in cyclics | | | | | | | | | | | | |
| XIAMETER™ PMX-1263 Fluid ¹ , XIAMETER™ PMX-1401 Fluid, XIAMETER™ PMX-1411 Fluid, XIAMETER™ PMX-1501 Fluid | | | | ● | ● | | | | | | | ● |
| Gum in fluids | | | | | | | | | | | | |
| XIAMETER™ PMX-1403 Fluid, XIAMETER™ PMX-1503 Fluid | ●● | | | | ●● | | | | | | | ● |
| DOWSIL™ CB-1556 Fluid | | | | ● | ●● | | | | | | | ● |
| Gum in isoparaffin | | | | | | | | | | | | |
| DOWSIL™ BY 25-320 | | | | ● | ● | | | | | | | ● |
| SILICONE EMULSIONS | | | | | | | | | | | | |
| Amine | | | | | | | | | | | | |
| XIAMETER™ MEM-0939 Emulsion, XIAMETER™ MEM-0949 Emulsion, XIAMETER™ MEM-0959 Emulsion | ● | | | | | | | | | | | |
| XIAMETER™ MEM-8168 Emulsion | ● | ● | | | ● | | | | | | | ● |
| XIAMETER™ MEM-8177 Emulsion | ● | ● | | | ● | | | | | | | ● |
| XIAMETER™ MEM-8194 Emulsion | ● | ● | ● | | ● | | | | | | | ● |
| XIAMETER™ MEM-8299 Emulsion | ● | | | | | | | | | | | |
| DOWSIL™ 5-7113 Silicone Quat Microemulsion | ● | ● | ● | | ● | ● | ●● | | | | | ● |
| DOWSIL™ CE-7080 Smart Style | | | | | | | ●● | | | | | |
| DOWSIL™ CE-8170 AF Microemulsion | ● | | | | ● | ● | | | | | | ● |
| DOWSIL™ CE 8401 Emulsion ¹ | ● | ● | | | ● | | | | | | | |
| DOWSIL™ CE 8411 Smooth Plus Emulsion | ● | ● | | | ● | | | | | | | |
| Dimethyl | | | | | | | | | | | | |
| XIAMETER™ MEM-7137 Emulsion | | ● | | | ● | | | | | | | |
| XIAMETER™ MEM-7138 Emulsion | ● | | | | ● | | | | | | | |
| DOWSIL™ HMW 2220 Non-Ionic Emulsion | | | | | ● | | ●● | | | | | |
| Silicone elastomers | | | | | | | | | | | | |
| DOWSIL™ 9509 Silicone Elastomer Suspension | | | | | | ●● | | ● | | | | |
| DOWSIL™ CE-7750 Velvety Emulsion | ●● | | | | | | | | | | | |
| DOWSIL™ 7-3101 Elastomer Blend HIP Emulsion | | | | | | ● | | ● | | | | |
| XIAMETER™ PMX-9027 Fluid | ● | | | | ● | | | | | | | |
| DOWSIL™ 9041 Silicone Elastomer Blend | | | | | | ● | | ● | | | | |
| DOWSIL™ 9045 Silicone Elastomer Blend | | | | | | ● | | ● | | | | |
| Silicone custom blend fluids | | | | | | | | | | | | |
| DOWSIL™ CB-3060 Fluid | ● | | | ● | ● | | | | | | | ● |
| XIAMETER™ PMX-3021 Fluid ¹ | ● | | | ● | ● | | | | | | | ● |
| XIAMETER™ PMX-3031 Fluid ¹ | ● | | | ● | ● | | | | | | | ● |

¹ Not sold in China.

● = Good fit ●● = Excellent fit

Hair care – Leave-in conditioner

- Improve combability and manageability
- Enhance hair shine
- Repair hair damage
- Provide styling effect



Product families for hair and skin care

These values are not intended for use in preparing specifications.

Silicone fluids

| DOWSIL™ product | INCI name | Viscosity, cSt | Specific gravity | Refractive index | Flash point, °C | Silicone, % |
|----------------------------------|--|----------------|------------------|------------------|-----------------|---------------------|
| VOLATILE SILICONE FLUIDS | | | | | | |
| DOWSIL™ FZ-3196 Fluid | Caprylyl Methicone | 2.9 | 0.84 | 1.413 | 110 | |
| SPECIALTY SILICONE FLUIDS | | | | | | |
| DOWSIL™ 556 Cosmetic Grade Fluid | Phenyl Trimethicone | 15-30 | 0.98 | 1.460 | 121 | 100 |
| DOWSIL™ PH-1560 Glossy Fluid | Diphenylmethylsiloxy Phenyl Methicone/ Phenyl Silsesquioxane Crosspolymer (and) Tetraphenyl Dimethyl Disiloxane (and) Trimethyl Pentaphenyl Trisiloxane | 10,000 | 1.15 | 1.58 | > 100 | 100 |
| DOWSIL™ 2-2078 Fluid | Aminopropyl Phenyl Trimethicone | 1,000-3,000 | 1.09 | 1.49-1.51 | | 100 |
| DOWSIL™ 593 Fluid | Dimethicone (and) Trimethylsiloxy silicate | 400-1,000 | 1.03 | 1.408 | 200 | 33% resin |
| DOWSIL™ 670 Fluid | Cyclopentasiloxane (and) Polypropylsilsesquioxane | 150-220 | 1.00 | 1.420 | 76 | 50% resin |
| DOWSIL™ 680 ID Fluid | Polypropylsilsesquioxane (and) Isododecane | 500-1,200 | 1.01 | 1.436 | 52 | 72.5-77.5% resin |
| DOWSIL™ 5562 Carbinol Fluid | Bis-hydroxyethoxypropyl Dimethicone | 30-60 | 0.98 | 1.410 | > 78 | 100 |
| DOWSIL™ RSN-0749 Resin | Cyclomethicone (and) Trimethylsiloxy silicate | 200-700 | 1.05 | 1.406 | 76 | 50% resin |
| DOWSIL™ AP-8087 Fluid | Bis-Hydroxy/Methoxy Amodimethicone | 3,000-4,500 | 0.98 | | | 100 |
| DOWSIL™ 8500 Conditioning Agent | Bis (C13-15 Alkoxy) PG Amodimethicone | 1,500-6,000 | 0.96 | | | 100 |
| DOWSIL™ 2-8566 Amino Fluid | Amodimethicone | 1,550-4,000 | 0.98 | | | 100 |

† Not sold in China.

● = Good fit

●● = Excellent fit

Silicone polyethers/emulsifiers

| DOWSIL™ product | INCI name | Active, % | Diluent | Calculated HLB | Flash point, °C | Cloud, °C | Water solubility |
|--|--|-----------|---|----------------|-----------------|-----------|------------------|
| DOWSIL™ 5200 Formulation Aid | Lauryl PEG/PPG-18/18 Methicone | 100 | None | 2.2 | 77 | -10 | No |
| DOWSIL™ ES-5300 Formulation Aid | Lauryl PEG-10 Tris(trimethylsiloxy)silylethyl Dimethicone | 100 | None | 3 | > 100 | N/A | No |
| DOWSIL™ 5225C Formulation Aid | Cyclopentasiloxane (and) PEG/PPG-18/18 Dimethicone | 10.5 | XIAMETER™ PMX-0245 Cyclopentasiloxane | 1.7 | 76 | Cloudy | No |
| DOWSIL™ ES-5612 Formulation Aid | PEG-10 Dimethicone | 100 | None | 4 | | | No |
| DOWSIL™ ES-5226 DM Formulation Aid | Dimethicone (and) PEG-/PPG-18/18 Dimethicone | 37.5 | XIAMETER™ PMX-200 Silicone Fluid (2 cSt) | 2 | | | No |
| DOWSIL™ ES-5227 DM Formulation Aid | Dimethicone (and) PEG/PPG-18/18 Dimethicone | 25 | XIAMETER™ PMX-200 Silicone Fluid (5 cSt) | 2 | | | No |
| DOWSIL™ 9011 Silicone Elastomer Blend | Cyclopentasiloxane (and) PEG-12 Dimethicone Crosspolymer | 12.5 | XIAMETER™ PMX-0245 Cyclopentasiloxane | 1.7 | 77 | Insoluble | No |
| DOWSIL™ BY 11-030 Emulsifier/Gelling Agent | Cyclopentasiloxane (and) PEG/PPG-19/19 Dimethicone | 50 | XIAMETER™ PMX-0245 Cyclopentasiloxane | 3.6 | 75 | Insoluble | No |
| DOWSIL™ BY 25-337 | PEG/PPG-19/19 Dimethicone (and) C13-16 Isoparaffin (and) C10-13 Isoparaffin | 50 | Liquid paraffin | N/A | 88.5 | N/A | No |
| DOWSIL™ FZ-2233 | Bis-Isobutyl PEG/PPG-10/7/ Dimethicone Copolymer | 100 | None | 2.5 | 198 | Insoluble | No |
| ACULYN™ 2051 Rheology Modifier† | Sodium Polyacrylate (and) Dimethicone (and) Cyclopentasiloxane (and) Trideceth-6 (and) PEG/PPG-18/18 Dimethicone | 26 | XIAMETER™ PMX-0245 Cyclopentasiloxane, XIAMETER™ PMX-200 Silicone Fluid (5 cSt) | 11.4† | > 100 | N/A | No |
| XIAMETER™ OFX-5329 Fluid | PEG-12 Dimethicone | 100 | None | 6.7 | 76.6 | < 23 | No |

†ACULYN™ 2051 Rheology Modifier HLB is the relevant HLB for nonionic surfactant inside.

Silicone emulsions

| DOWSIL™ products | INCI name | Silicone, % | Emulsifier type | Particle size, µm |
|---|--|-------------|-----------------|-------------------|
| EMULSIONS | | | | |
| DOWSIL™ CE-1689 Smoothing Emulsion | Dimethicone (and) Amodimethicone (and) Laureth-23 (and) Polyquaternium-10 (and) Laureth-4 | 60 | Nonionic | 18-28 |
| DOWSIL™ CE-7080 Smart Style | Silicone Quaternium-16/Glycidoxy Dimethicone Crosspolymer (and) Undeceth-11 (and) Undeceth-5 | ~25 | Nonionic | 0.03-0.05 |
| DOWSIL™ CE 8401 Emulsion ¹ | Bis-Isobutyl PEG/PPG-20/35/ Amodimethicone Copolymer (and) Cetyl Ethylhexanoate (and) Polysorbate 80 (and) Butylene Glycol | 20 | Nonionic | |
| DOWSIL™ CE 8411 Smooth Plus Emulsion | Bis-Diisopropanolamino-PG-propyl Dimethicone/Bis-Isobutyl PEG-14 Copolymer (and) Polysorbate 20 (and) Butyloctanol | 56 | Nonionic | |
| DOWSIL™ HMW 2220 Non-Ionic Emulsion | Divinyldimethicone/Dimethicone Copolymer (and) C12-C13 Pareth-3 (and) C12-C13 Pareth-23 | 61 | Nonionic | < 1 |
| DOWSIL™ 9509 Silicone Elastomer Suspension | Dimethicone/Vinyl Dimethicone Crosspolymer (and) C12-14 Pareth-12 | 63 | Nonionic | 1-10 |
| DOWSIL™ CE-7750 Velvety Emulsion | Dimethicone/Vinyldimethicone Crosspolymer, Isoceteth-25, Isoceteth-10 | ~50 | Nonionic | 1-10 |
| MICROEMULSIONS | | | | |
| DOWSIL™ CE-8170 AF Microemulsion | Amodimethicone (and) C11-15 Pareth-7 (and) Laureth-9 (and) Glycerin (and) Trideceth-12 | 20 | Nonionic | < 1 |
| DOWSIL™ 5-7113 Silicone Quat Microemulsion | Silicone Quaternium-16 (and) Undeceth-11 (and) Butyloctanol (and) Undeceth-5 | 25 | Nonionic | < 1 |
| HIP EMULSIONS Active, % | | | | |
| DOWSIL™ 7-3101 Elastomer Blend HIP Emulsion | Cyclopentasiloxane (and) Dimethicone Crosspolymer (and) Dimethicone (and) Laureth-23 (and) Laureth-4 | 85 | Nonionic | > 1 |
| DOWSIL™ 7-3111 Petrolatum Blend HIP Emulsion | Petrolatum (and) Dimethicone (and) Ceteth-10 (and) Steareth-21 (and) Poloxamer-335 | 77 | Nonionic | > 1 |

¹ Not sold in China.

Silicone gum blends

| DOWSIL™ product | INCI name | Gum, % | Viscosity, cSt | Flash point, °C | Refractive index | Specific gravity |
|-------------------|---|--------|----------------|-----------------|------------------|------------------|
| DOWSIL™ BY 25-320 | C13-16 Isoparaffin (and) Dimethicone (and) C10-13 Isoparaffin | 20 | 10,000 | 83 | 1.432 | 0.82 |

Alkyl methyl siloxanes

| DOWSIL™ product | INCI name | Functionality | Melting point average, °C | Form | Refractive index | Average molecular weight |
|-------------------------------|--|--|---------------------------|---------------|------------------|--------------------------|
| DOWSIL™ 2501 Cosmetic Wax | Bis-PEG-18 Methyl Ether Dimethyl Silane | PEG-18 Methyl Ether | 31 | Wax | N/A | N/A |
| DOWSIL™ 2502 Cosmetic Fluid | Cetyl Dimethicone | C ₁₆ H ₃₃ | 18 | Semisolid wax | 1.448 | 2,800 |
| DOWSIL™ 2503 Cosmetic Wax | Stearyl Dimethicone | C ₁₈ H ₃₉ | 32 | Wax | 1.447 | 3,000 |
| DOWSIL™ AMS-C30 Cosmetic Wax | C30-45 Alkyl Methicone (and) C30-45 Olefin | C ₃₀ H ₆₁ to C ₄₅ H ₉₁ | 71 | Wax | 1.446 | 3,200 |
| DOWSIL™ 580 Wax | Stearoxy Trimethylsilane (and) Stearyl Alcohol | C ₁₈ H ₃₇ and Stearyl Alcohol | 50 | Wax | N/A | 300 |
| DOWSIL™ SW-8005 C30 Resin Wax | C30-45 Alkyldimethylsilyl Polypropylsilsesquioxane | [CH ₃ CH ₂ CH ₂ SiO _{3/2}] _x [R(CH ₃) ₂ SiO _{1/2}] _y where R is -(CH ₂) _n CH ₃ where n = 30-45 | 66 | Flake | N/A | N/A |

Silicone elastomers

| DOWSIL™ product | INCI name | Type/form | Continuous phase | Viscosity, cP | % NVC |
|---|---|-----------|--|-----------------|-------------|
| DOWSIL™ 9040 Silicone Elastomer Blend | Cyclopentasiloxane (and) Dimethicone Crosspolymer | Gel | Silicone (D5) | 250,000-580,000 | 12.5 |
| DOWSIL™ 9041 Silicone Elastomer Blend | Dimethicone (and) Dimethicone Crosspolymer | Paste | Silicone (XIAMETER™ PMX-200 Silicone Fluid, 5 cSt) | 300,000-500,000 | 100 |
| DOWSIL™ 9045 Silicone Elastomer Blend | Cyclopentasiloxane (and) Dimethicone Crosspolymer | Gel | Silicone (D5) | 300,000-500,000 | 12-12.75 |
| DOWSIL™ EL-9240 Silicone Elastomer Blend | Dimethicone (and) Dimethicone Crosspolymer | Paste | Silicone (XIAMETER™ PMX-200 Silicone Fluid, 2 cSt) | 350,000-575,000 | 13.0-14.75 |
| DOWSIL™ 2-3040 Blend ¹ | Cyclopentasiloxane (and) Dimethicone Crosspolymer | Gel | Silicone (D5) | 150,000-350,000 | 10.75-12.25 |
| DOWSIL™ 9506 Powder | Dimethicone/ Vinyl dimethicone Crosspolymer | Powder | N/A | Solid | > 98 |
| DOWSIL™ 9509 Silicone Elastomer Suspension | Dimethicone/ Vinyl dimethicone Crosspolymer (and) C12-14 Pareth-12 | Lotion | Water | 5,000 cSt | 63-71 |
| DOWSIL™ 9701 Cosmetic Powder | Dimethicone/ Vinyl dimethicone Crosspolymer (and) Silica | Powder | N/A | Solid | > 98 |
| DOWSIL™ EP-9801 Hydro Cosmetic Powder | Dimethicone/Vinyl Dimethicone Crosspolymer (and) Silica (and) Butylene Glycol | Powder | N/A | Solid | > 98 |
| DOWSIL™ 9546 Silicone Elastomer Blend | Cyclopentasiloxane (and) Dimethicone Crosspolymer (and) Dimethicone/Vinyl Dimethicone Crosspolymer (and) Dimethiconol | Gel | Silicone (D5) | 250,000-450,000 | 15-16 |
| DOWSIL™ FB-9586 Silicone Elastomer Blend ² | Cyclopentasiloxane (and) Dimethicone/ Vinyl Dimethicone Crosspolymer (and) Dimethicone | Gel | Silicone (D5 + XIAMETER™ PMX-200 Silicone Fluid*) | 30,000-70,000 | 45 |
| DOWSIL™ EL-8040 ID Silicone Organic Blend | Isododecane (and) Dimethicone Crosspolymer | Gel | Isododecane | 300,000-550,000 | 15.25-16.75 |
| DOWSIL™ EL-8050 ID Silicone Organic Elastomer Blend | Isododecane (and) Dimethicone/ Bis-Isobutyl PPG-20 Crosspolymer | Gel | Isododecane | 350,000-575,000 | 14.25-15.75 |
| DOWSIL™ EL-8051 IN Silicone Organic Elastomer Blend | Isodecyl Neopentanoate (and) Dimethicone/ Bis-Isobutyl PPG-20 Crosspolymer | Gel | Isodecyl Neopentanoate | 350,000-575,000 | 100 |
| DOWSIL™ EL-8052 IH Silicone Organic Elastomer Blend | Isohexadecane (and) Dimethicone/ Bis-Isobutyl PPG-20 Crosspolymer | Gel | Isohexadecane | 350,000-575,000 | 16-17.5 |

¹ Not sold in China.

Specials

| DOWSIL™ product | INCI name | Viscosity, cSt | Specific gravity | Refractive index | Flash point, °C | Silicone, % |
|--|---|----------------|------------------|------------------|-----------------|-------------|
| DOWSIL™ MQ-1600 Solid Resin | Trimethylsiloxysilicate | | 1.23 | | > 100 | 100 |
| DOWSIL™ MQ-1640 Flake Resin | Trimethylsiloxy Silicate (and) Polypropylsilsesquioxane | | 1.18 | | > 100 | 100 |
| DOWSIL™ FA 4001 CM Silicone Acrylate | Cyclopentasiloxane (and) Acrylates/ Polytrimethylsiloxymethacrylate Copolymer | 80-400 | 0.95 | 1.415 | 72 | 30 |
| DOWSIL™ FA 4002 ID Silicone Acrylate | Isododecane (and) Acrylates/ Polytrimethylsiloxymethacrylate Copolymer | 100-500 | 0.75 | 1.433 | 40 | 40 |
| DOWSIL™ VM-2270 Aerogel Fine Particles | Silica Silylate | Solid | 0.07 | N/A | > 250 | 100 |

Customer blend fluids

| DOWSIL™ product | INCI name | Viscosity, cP @ 25°C | Silicone content, % | Specific gravity | Appearance |
|-----------------------|---|----------------------|---------------------|------------------|-------------------------|
| DOWSIL™ CB-3060 Fluid | Cyclotetrasiloxane (and) Cyclopentasiloxane (and) Dimethicone (and) Trisiloxane (and) Phenyl trimethicone (and) Isoparaffinic hydrocarbon | 3-7 | | 0.89 | Clear, Colorless Liquid |

Silicone fluids

| XIAMETER™ products | INCI name | Average molecular weight | Specific gravity | Refractive index | Flash point, °C |
|---|--|--------------------------|------------------|------------------|-----------------|
| SILICONE FLUIDS – LOW VISCOSITY | | | | | |
| XIAMETER™ PMX-200 Silicone Fluid, 5 cSt | Dimethicone | 700 | 0.915 | 1.397 | 134 |
| XIAMETER™ PMX-200 Silicone Fluid, 6 cSt | Dimethicone | 850 | 0.925 | 1.397 | 153 |
| XIAMETER™ PMX-200 Silicone Fluid, 10 cSt | Dimethicone | 1,000 | 0.934 | 1.399 | 211 |
| XIAMETER™ PMX-200 Silicone Fluid, 20 cSt | Dimethicone | 1,500 | 0.950 | 1.401 | 246 |
| SILICONE FLUIDS – MEDIUM VISCOSITY | | | | | |
| XIAMETER™ PMX-200 Silicone Fluid, 50 cSt | Dimethicone | 3,200 | 0.960 | 1.402 | > 326 |
| XIAMETER™ PMX-200 Silicone Fluid, 100 cSt | Dimethicone | 5,000 | 0.965 | 1.402 | > 326 |
| XIAMETER™ PMX-200 Silicone Fluid, 200 cSt | Dimethicone | 7,500 | 0.970 | 1.403 | > 326 |
| XIAMETER™ PMX-200 Silicone Fluid, 350 cSt | Dimethicone | 10,000 | 0.970 | 1.404 | > 326 |
| XIAMETER™ PMX-200 Silicone Fluid, 500 cSt | Dimethicone | 13,000 | 0.970 | 1.404 | > 326 |
| XIAMETER™ PMX-200 Silicone Fluid, 1,000 cSt | Dimethicone | 16,500 | 0.970 | 1.404 | > 326 |
| SILICONE FLUIDS – HIGH VISCOSITY | | | | | |
| XIAMETER™ PMX-200 Silicone Fluid, 12,500 cSt | Dimethicone | 64,000 | 0.970 | 1.404 | > 326 |
| XIAMETER™ PMX-200 Silicone Fluid, 60,000 cSt | Dimethicone | 95,000 | 0.970 | 1.404 | > 326 |
| XIAMETER™ PMX-200 Silicone Fluid, 300,000 cSt | Dimethicone | 204,000 | 0.970 | 1.404 | > 326 |
| XIAMETER™ PMX-200 Silicone Fluid, 500,000 cSt | Dimethicone | > 100,000 | 0.970 | 1.403 | 321 |
| XIAMETER™ PMX-9111 Fluid | Cyclopentasiloxane (and) Dimethicone | N/A | 0.962 | 1.399 | > 72 |
| SILICONE FLUIDS – VOLATILE | | | | | |
| XIAMETER™ PMX-0245 Cyclopentasiloxane | Cyclopentasiloxane | 371 | 0.95 | 1.397 | 76 |
| XIAMETER™ PMX-0246 Cyclohexasiloxane | Cyclohexasiloxane (and) Cyclopentasiloxane | 445 | 0.96 | 1.399 | 93 |
| XIAMETER™ PMX-200 Silicone Fluid, 0.65 cSt | Disiloxane | 162 | 0.76 | 1.375 | -3 |
| XIAMETER™ PMX-200 Silicone Fluid, 1.0 cSt | Trisiloxane | 236 | 0.82 | 1.382 | 30 |
| XIAMETER™ PMX-200 Silicone Fluid, 1.5 cSt | Dimethicone | 311 | 0.85 | 1.387 | 57 |
| XIAMETER™ PMX-200 Silicone Fluid, 2.0 cSt | Dimethicone | 385 | 0.87 | 1.389 | 87 |

Silicone polyethers/emulsifiers

| XIAMETER™ products | INCI name | Active, % | Diluent | Calculated HLB | Flash point, °C | Cloud, °C | Water solubility |
|--------------------------|---------------------------|-----------|---------|----------------|-----------------|-----------|------------------|
| XIAMETER™ OFX-0193 Fluid | PEG-12 Dimethicone | 100 | None | 12.2 | 99 | 87 | Yes |
| XIAMETER™ OFX-5330 Fluid | PEG/PPG-15/15 Dimethicone | 100 | None | 7.1 | 97 | 35.7 | Yes |
| XIAMETER™ OFX-5324 Fluid | PEG-12 Dimethicone | 100 | None | 8.4 | 60 | 23 | Yes |



Silicone emulsions

| XIAMETER™ products | INCI name | Silicone, % | Emulsifier type | Particle size, µm |
|--|--|-------------|-----------------|-------------------|
| EMULSIONS | | | | |
| XIAMETER™ MEM-0939 Emulsion | Amodimethicone (and) Trideceth-12 (and) Cetrimonium Chloride | 35 | Cationic | < 1 |
| XIAMETER™ MEM-0949 Emulsion | Amodimethicone (and) Trideceth-12 (and) Cetrimonium Chloride | 35 | Cationic | < 1 |
| XIAMETER™ MEM-0959 Emulsion | Amodimethicone (and) Trideceth-12 (and) Cetrimonium Chloride | 50 | Cationic | < 1 |
| XIAMETER™ MEM-8299 Emulsion | Amodimethicone (and) Trideceth-6 (and) Cetrimonium Chloride | 60 | Cationic | <1 |
| XIAMETER™ MEM-1491 Emulsion ¹ | Dimethicone (and) Laureth-23 (and) C12-15 Pareth-3 | 60 | Nonionic | 10-30 |
| XIAMETER™ MEM-1352 Emulsion | Dimethicone (and) Laureth-23 (and) C12-15 Pareth-3 | 60 | Nonionic | < 1 |
| XIAMETER™ MEM-1691 Emulsion | Dimethicone (and) C12-13 Pareth-4 (and) C12-13 Pareth-23 (and) Salicylic Acid | 50 | Nonionic | < 1 |
| XIAMETER™ MEM-7137 Emulsion | Dimethicone (and) Cocamidopropyl Betaine (and) C12-15 Pareth-3 (and) Guar Hydroxypropyltrimonium Chloride | 65 | Nonionic | 25-45 |
| XIAMETER™ MEM-7138 Emulsion | Dimethicone (and) Laureth-23 and C12-15 Pareth-3 | 60 | Nonionic | 10-30 |
| XIAMETER™ MEM-1785 Emulsion ¹ | Dimethiconol (and) TEA Dodecylbenzenesulfonate | 60 | Anionic | < 1 |
| XIAMETER™ MEM-1788 Emulsion ¹ | Dimethiconol (and) TEA Dodecylbenzenesulfonate | 51 | Anionic | < 1 |
| MICROEMULSIONS | | | | |
| XIAMETER™ MEM-1391 Emulsion | Dimethiconol (and) TEA-Dodecyl-benzenesulfonate (and) Dimethiconol/Silsesquioxane Copolymer (and) Laureth-23 | 25 | Anionic | < 1 |
| XIAMETER™ MEM-8168 Emulsion | Amodimethicone (and) C12-14 Sec-Pareth-7 (and) C12-14 Sec-Pareth-5 | 20 | Nonionic | < 1 |
| XIAMETER™ MEM-8177 Emulsion | Amodimethicone (and) C12-14 Sec-Pareth-7 (and) C12-14 Sec-Pareth-5 | 12 | Nonionic | < 1 |
| XIAMETER™ MEM-8194 Emulsion | Amodimethicone (and) Trideceth-12 (and) Cetrimonium Chloride | 26 | Cationic | < 1 |
| XIAMETER™ MEM-1870 Emulsion | Dimethiconol (and) TEA-Dodecyl-benzenesulfonate (and) Laureth-23 | 25 | Anionic | < 1 |

Silicone gum blends

| XIAMETER™ products | INCI name | Gum, % | Viscosity, cSt | Flash point, °C | Refractive index | Specific gravity |
|---------------------------------------|--|--------|----------------|-----------------|------------------|------------------|
| XIAMETER™ PMX-1263 Fluid ¹ | Cyclopentasiloxane (and) Dimethiconol (and) Dimethicone | 15 | 7,500 | > 72 | 1.397 | 0.96 |
| XIAMETER™ PMX-1401 Fluid | Cyclopentasiloxane (and) Cyclotetrasiloxane (and) Dimethiconol | 13 | 6,000 | 52 | 1.397 | 0.96 |
| XIAMETER™ PMX-1411 Fluid | Cyclopentasiloxane (and) Dimethicone | 15 | 6,000 | 70 | 1.397 | 0.97 |
| XIAMETER™ PMX-1403 Fluid | Dimethicone (and) Dimethiconol | 13 | 4,000 | 135 | 1.397 | 0.93 |
| XIAMETER™ PMX-1501 Fluid | Cyclopentasiloxane (and) Dimethiconol | 15 | 6,000 | 67 | 1.397 | 0.96 |
| XIAMETER™ PMX-1503 Fluid | Dimethicone (and) Dimethiconol | 12 | 2,000 | 109 | 1.397 | 0.98 |
| DOWSIL™ CB-1556 Fluid | Phenyl Trimethicone (and) Dimethiconol | 12 | 5,000 | > 105 | 1.452 | 0.918 |

Silicone elastomers

| XIAMETER™ products | INCI name | Type/form | Continuous phase | Viscosity, cP | % NVC |
|--------------------------|--|----------------|------------------|---------------|-------|
| XIAMETER™ PMX-9027 Fluid | Cyclopentasiloxane (and) Dimethiconol (and) Dimethicone Crosspolymer | Viscous Liquid | Silicone (D5) | 3,000-5,000 | 11 |

Other fluids

| XIAMETER™ products | INCI name | Viscosity, cP @ 25°C | Silicone content, % | Specific gravity | Appearance |
|---------------------------------------|--|----------------------|---------------------|------------------|-------------------------|
| XIAMETER™ PMX-3021 Fluid ¹ | Cyclopentasiloxane, Dimethiconol, Dimethicone Crosspolymer (and) Phenyltrimethicone Blend | 10 | 100 | 0.95 | Clear, colorless liquid |
| XIAMETER™ PMX-3031 Fluid ¹ | Cyclopentasiloxane, Dimethiconol, Dimethicone Crosspolymer (and) Phenyl Trimethicone Blend | 500 | 100 | 0.96 | Clear, colorless liquid |

¹ Not sold in China.

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