



DOW CORNING

# Coatings & Inks Additive Selection Guide

a little makes a big *splash!*

WITH **ADDITIVES** FROM DOW CORNING



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a little makes a big

splash!

It takes only a little of an additive from Dow Corning to make the significant performance difference your customers demand from your paint, ink and coating formulations. *Dow Corning*® brand and XIAMETER® brand additives provide problem-solving performance.

- Use in waterborne or solventborne formulations
- Compatible with most binder systems
- High efficiency at low concentration levels to help lower raw materials costs
- Suitable for use in low-VOC, sustainably formulated products
- Formulated for versatility and ease of use

### Problem-Solving Performance

For more than half a century, Dow Corning has led the way in silicon-based technology and is a global leader in the development of problem-solving, silicon-based technologies used in paints, inks and coatings. Many of our additives impart a combination of benefits, giving you a high benefit-to-cost ratio. Whether you need foam control; improved pigment dispersion, surface wetting, leveling or adhesion; water resistance, mar resistance, slip, gloss or texturization; or any combination of benefits, silicon-based technology from Dow Corning can help you achieve it.

### Global Resources, Local Expertise and Support

With global manufacturing facilities, sales offices, research and development laboratories, and Technical Information Centers all linked to a worldwide network of expert local distributors, Dow Corning is able to provide you with an exceptional level of service, support and value. Dow Corning is known for outstanding technical support. Our team of experts will work hand-in-hand with yours to ensure your success with the amazingly versatile materials.





### How to Use This Guide

This guide will help you explore the properties and performance capabilities of our global line of additives for paints, inks and coatings. Table 1 groups the additives by their primary benefit and describes their physical makeup, features, secondary benefits and properties. Table 2 highlights products available in sample size via our Additive Sample Program.

### About Concentrations and Blending

The amount of additive required to achieve a particular benefit depends on the type of formulation, the solvent it contains, the resin system and total system solids. Generally, our additives are effective at the concentrations noted in Table 1. Since advantages do not increase proportionally, avoid using excess amounts. Additives from Dow Corning are usually added during grind or let-down, or they are post-added. However, some may be added during any processing stage. See Table 1 for additional information.

**[dowcorning.com/coatings](https://www.dowcorning.com/coatings)**

gives you immediate access to:

- Product samples
- Product literature and technical data sheets
- Technical articles
- Customer service
- The name of a technically knowledgeable Dow Corning distributor near you

Table 1. Features, Typical Use and Properties of Additives from Dow Corning<sup>®</sup> (Products are listed under their primary benefit.)

Product	Description	Features/Benefits	Compatible Binder Systems	Point of Addition	Typical Concentration <sup>2)</sup>	Suitable Diluents <sup>3)</sup>	Reactive Groups	Solvent	Viscosity at 25°C (77°F), cSt	FDA Food Contact Compliance <sup>4)</sup>
<b>Slip, Mar Resistance</b>										
<i>Dow Corning</i> <sup>®</sup> 11 Additive	Silicone polyether copolymer; 10% active	Increases mar resistance of solventborne coatings; also improves leveling and gloss and prevents pigment separation	Solventborne acrylic, alkyd, amide, epoxy, nitrocellulose, polyester, polyurethane, vinyl	Grind or let-down or post add	0.1-0.5%	Aromatics such as xylene or toluene; mineral spirits or ketones	Carbinol	Toluene	1.0-2.0	–
<i>Dow Corning</i> <sup>®</sup> 14 Additive	Silicone polyether copolymer; 10% active	Improves slip and mar resistance; provides leveling (waterborne and solventborne coatings)	Acrylic, alkyd, epoxy, polyester, polyurethane (waterborne and solventborne)	Grind or let-down or post add	0.1-0.5%	Water or alcohols	Carbinol	Isopropanol	<10	–
<i>Dow Corning</i> <sup>®</sup> 18 Additive	Dispersion of high molecular weight polydimethylsiloxane and silicone surfactant; 100% active	Provides slip and mar resistance in waterborne and solventborne coatings; anti-blocking in waterborne coatings	Acrylic, polyester, polyurethane (waterborne and solventborne)	Let-down or post add	0.1-1.0%	Water	None	None	250,000-650,000	–
<i>Dow Corning</i> <sup>®</sup> 27 Additive	Nonreactive silicone glycol copolymer; 100% active	Effective at mar resistance and slip while maintaining gloss; reduced coefficient of friction	Water-based acrylic flexographic ink and UV overprint varnish	Let-down or post add	0.1-1.0%	Water and suitable solvents	None	None	275	FDA 176.210, 175.105
<i>Dow Corning</i> <sup>®</sup> 29 Additive	Silicone polyether copolymer	Imparts mar resistance to waterborne and solventborne coatings; also improves leveling and substrate wetting	Acrylic, epoxy, polyurethane (waterborne and solventborne)	Grind or let-down or post add	0.1-1.0%	Water or alcohols	Carbinol	None	200-500	–
<i>Dow Corning</i> <sup>®</sup> 51 Additive	Dispersion of high molecular weight polysiloxane and surfactants; 80% active	Imparts mar resistance and slip to waterborne coatings; also provides anti-blocking	Waterborne acrylic, alkyd, epoxy, nitrocellulose, polyester, polyurethane, vinyl	Grind or let-down or post add	0.05-3.0%	Water	Silanol	Water	200,000-750,000	FDA 175.105, 176.180, 176.210
<i>Dow Corning</i> <sup>®</sup> 52 Additive	Dispersion of high molecular weight polysiloxane and surfactants; 64% active	Imparts mar resistance and slip to waterborne coatings; also provides anti-blocking	Waterborne acrylic, polyurethane	Let-down or post add	0.01-3.5%	Water	Silanol	Water	3,000-5,000	FDA 176.210
<i>Dow Corning</i> <sup>®</sup> 54 Additive	Silicone polyether copolymer	Provides mar resistance, slip and leveling in waterborne and solventborne coatings; aids defoaming in some systems	Solventborne acrylic, alkyd, epoxy, polyester, polyurethane, vinyl, waterborne acrylic and polyester	Let-down or post add	0.05-1.0%	Aromatics such as xylene or toluene, mineral spirits	Carbinol	None	149-185	–
<i>Dow Corning</i> <sup>®</sup> 55 Additive	Silicone polyether copolymer; 10% active	Increases slip and mar resistance in waterborne and solventborne coatings; improves leveling in solventborne coatings	Waterborne acrylic, alkyd, solventborne polyurethane	Post add	0.1 - 0.5%	Water or alcohols	Carbinol	2-butoxy-ethanol	6	–
<i>Dow Corning</i> <sup>®</sup> 204SL Additive	Silicone polyether copolymer	Slip and hand feel modifier for radiation curable systems; also provides good flow and leveling	Acrylate	Let-down	0.2%	Alcohols, glycol ethers and aromatic solvents	None	None	100-150	–
<i>Dow Corning</i> <sup>®</sup> 205SL Additive	Silicone polyether copolymer; 50% active	Superior hand feel modifier for multiple delivery coating systems; lowers coefficient of friction (CoF); foam control; also effective in solventborne coatings	Waterborne acrylic, polyurethane, alkyd, polyester, solventborne polyurethane, polyester, UV acrylate	Let-down	0.1 - 1.0%	Alcohols, glycol ethers and aromatic solvents	Carbinol	Ethylene glycol isopropyl ether	25-60	–
XIAMETER <sup>®</sup> OFX-0190 Fluid <sup>5)</sup>	Silicone polyether copolymer; 100% active	Imparts mar resistance and substrate wetting in waterborne and solventborne coatings	Waterborne and solventborne acrylic, solventborne epoxy and nitrocellulose; waterborne polyurethane	Grind or let-down; post add for waterborne	0.1-1.0%	Water or alcohols	None	None	1,500-2,500	–
XIAMETER <sup>®</sup> OFX-0193 Fluid <sup>6)</sup>	Silicone polyether copolymer; 100% active	Improves slip, mar resistance and leveling in waterborne and solventborne coatings	Waterborne and solventborne acrylic, alkyd, epoxy; waterborne polyester, polyurethane, vinyl	Let-down or post add	0.1-1.0%	Water or alcohols	Carbinol	None	250-380	FDA 177.1520

(continued on pages 5, 6, 7, 8, 9)

**Table 1. Features, Typical Use and Properties of Additives from Dow Corning<sup>11</sup> (continued)**

Product	Description	Features/Benefits	Compatible Binder Systems	Point of Addition	Typical Concentration <sup>2)</sup>	Suitable Diluents <sup>3)</sup>	Reactive Groups	Solvent	Viscosity at 25°C (77°F), cSt	FDA Food Contact Compliance <sup>4)</sup>
<b>Foam Control</b>										
<b>Fluorosilicones</b>										
<i>Dow Corning</i> <sup>®</sup> 7 Additive	Fluorosilicone; 5% active	Provides foam prevention and defoaming in solventborne coatings	Solventborne acrylic, alkyd, amide, epoxy, polyester, polyurethane, vinyl	Grind or let-down or post add	0.05-1.0%	Ketones	None	Methyl-isobutyl-ketone	0.74-0.84	FDA 177.2600
<i>Dow Corning</i> <sup>®</sup> 100F Additive	Fluorosilicone; 1% active	Foam control agent in solventborne and radiation curable coatings; good for high-solids formulations	Solventborne acrylic, alkyd, epoxy, polyester, polyurethane; radiation-curable acrylate	Let-down or post add	0.1-1.0%	Ketones	None	Disobutyl ketone	<5	-
<i>Dow Corning</i> <sup>®</sup> 102F Additive	Fluorosilicone; 1% active	Provides foam control with good balance between effectiveness and compatibility	Solventborne alkyd, 2K polyurethane and epoxy paints	Grind, let-down or post add	0.05-0.7%	MEK and n-Propyl acetate	None	Methyl ethyl ketone and n-Propyl acetate	Not available	-
<i>Dow Corning</i> <sup>®</sup> 8621 Additive	Fluorosilicone; 5% active	Foam control agent in solvent-based and radiation-curable/UV-curable coatings	Solventborne 1K silicone acrylic paint, acrylic dispersion paint, alkyd and radiation-curable paint	Grind, let-down or post add	0.1-1.0%	MEK and n-Propyl acetate	None	Methyl ethyl ketone	0.94	-
<b>Emulsions</b>										
<i>Dow Corning</i> <sup>®</sup> 62 Additive	Silicone emulsion; 57% active	Provides foam control in waterborne inks and coatings; good compatibility and low tendency to cause defects	Waterborne acrylic, polyurethane	Grind or let-down or post add	0.05-0.5%	Water	Silanol	Water	1,000-3,500	FDA 175.105, 176.210
<i>Dow Corning</i> <sup>®</sup> 68 Additive	Silicone emulsion; 50-55% active	Provides immediate and sustainable foam control in waterborne inks, coatings and paints	Acrylic, polyurethane	Post add	0.05-0.5%	Water	Silanol	Water	1,000-3,000	-
<i>Dow Corning</i> <sup>®</sup> 108F Additive	Silicone emulsion; 22.5% active	Provides foam control in waterborne coatings and inks; good compatibility and low tendency to cause defects	Water-based systems <i>NOTE: Always check compatibility before usage</i>	Let-down	0.1-1.0%	Water	None	Water	1,600	Swiss Ordinance
XIAMETER <sup>®</sup> AFE-0700 Antifoam Emulsion	Silicone antifoam emulsion; 10% active	Good foam control and high persistence over a wide pH and temperature range	Water-based systems <i>NOTE: Always check compatibility before usage</i>	Added directly or during the let-down stage	0.05-1.0%	Water	None	None	1,750	-
XIAMETER <sup>®</sup> AFE-2210 Antifoam Emulsion	Silicone antifoam emulsion; 10% active	Provides foam control in waterborne coatings, including combinations of acrylic latexes and polyurethane dispersions	Waterborne acrylic and styrene acrylic	Grind, let-down or post add	0.05-1.0%	Water	None	Water	1,500-3,400	-

(continued on pages 6, 7, 8, 9)



Table 1. Features, Typical Use and Properties of Additives from Dow Corning<sup>11</sup> (continued)

Product	Description	Features/Benefits	Compatible Binder Systems	Point of Addition	Typical Concentration <sup>21</sup>	Suitable Diluents <sup>18</sup>	Reactive Groups	Solvent	Viscosity at 25°C (77°F), cSt	FDA Food Contact Compliance <sup>11</sup>
<b>Foam Control (continued)</b>										
<b>Self-Dispersible Compounds</b>										
<i>Dow Corning</i> <sup>®</sup> 74 Additive	Organo-modified silicone copolymer	Provides foam control in waterborne coatings, especially ink; balancing effective foam control and surface appearance	Waterborne acrylic	Let-down or post add	0.1-0.5%	Alcohols, glycol ethers and ester alcohol	None	None	350-900	FDA 175.105, 175.300, 175.320, 176.200, 176.210
<i>Dow Corning</i> <sup>®</sup> 74 Additive	Organo-modified silicone copolymer	Provides foam control in waterborne coatings, especially wood coatings; balancing effective foam control and surface appearance	Waterborne acrylic	Let-down or post add	0.1-0.5%	Alcohols and glycol ethers	Carbinol	None	350-1,400	FDA 176.210
<i>Dow Corning</i> <sup>®</sup> 163 Additive	Silicone antifoam compound; 100% active	Provides foam control in waterborne, solventborne and radiation-cured coatings and inks	Waterborne and solventborne acrylic, epoxy, polyester, polyurethane, vinyl; also radiation-cured	Let-down or post add	0.1-1.0%	Glycols	Silanol	None	750-1,550	FDA 175.105, 175.300, 176.170, 176.180, 176.200, 176.210
<i>Dow Corning</i> <sup>®</sup> 8590 Additive	Silicone antifoam compound with silica; 100% active	Effective foam control for waterborne coating and ink systems at low dosages; no impact on gloss; tendency toward low surface defects; low viscosity for easy dispersibility	Waterborne acrylic styrene emulsion paint, flexographic inks, acrylic overprint varnish, acrylic urethane emulsions	Grind, let-down or post add	0.05-1.0%	Can be added directly or pre-diluted with alcohols or polyglycols	None	None	784	–
<i>Dow Corning</i> <sup>®</sup> 8603 Additive	Silicone antifoam compound with silica; 100% active	Effective foam control for waterborne coating and ink systems at low dosages; tendency toward low surface defects	Waterborne acrylic styrene emulsion paint, interior wall paint, flexo gravure inks, polyester acrylic, acrylic-modified alkyd	Grind, let-down or post add	0.05-1.0%	Can be added directly or pre-diluted with alcohols or polyglycols	None	None	900-3,600	–
<i>Dow Corning</i> <sup>®</sup> 8628 Additive	100% organofunctional silicone	Effective foam control for waterborne coating systems	Waterborne UV-curable inks; waterborne wood stains, trims and varnishes <i>NOTE: Always check compatibility before usage</i>	Added directly or during the let-down stage	0.05-1.0%	Glycol ether	None	None	4,000	–

(continued on pages 7, 8, 9)

**Table 1. Features, Typical Use and Properties of Additives from Dow Corning<sup>®</sup> (continued)**

Product	Description	Features/Benefits	Compatible Binder Systems	Point of Addition	Typical Concentration <sup>2)</sup>	Suitable Diluents <sup>3)</sup>	Reactive Groups	Solvent	Viscosity at 25°C (77°F), cSt	FDA Food Contact Compliance <sup>4)</sup>
<b>Adhesion Promotion and Surface Treatment (Substrates, Pigments)</b>										
<i>Dow Corning</i> <sup>®</sup> 3 Additive	Silanol-functional (Si-OH) additive; 10% active	Improves pigment dispersion and reduces separation and floatation in solventborne coatings; also provides leveling, flow-out and gloss	Solventborne acrylic, alkyd, polyester, epoxy, polyurethane	Grind or let-down or post add	0.1-0.5%	Aromatics such as xylene or toluene; mineral spirits or ketones	Silanol	Toluene	0.7-1.4	–
<i>Dow Corning</i> <sup>®</sup> 700P Additive	Alkoxy siloxane with organic group, 90% active	Titanium dioxide dispersant both for high-grade and low-grade TiO <sub>2</sub> ; provides stabilization of pigment dispersion and prevents pigment flooding and floating	Solventborne inorganic filler dispersant	Combine with resins before adding pigment for grinding	0.02-4.0%	Xylene and butyl acetate	Alkoxy	Methanol	5.5	–
<i>Dow Corning</i> <sup>®</sup> Z-6121 Silane	Aminoethylaminopropyl-trialkoxysilane; 50% active	Improves adhesion of waterborne and solventborne coatings when bonded to glass or metal substrates; can be used as an additive or primer	Waterborne and solventborne acrylic, alkyd, epoxy, polyester	Grind for waterborne; let-down or post add for solventborne	Primer: dilute to 10% active Additive: 0.1-5.0%	Alcohols and water	Amino; alkoxy-silyl	n-Butanol	<10	FDA 175.105
<i>Dow Corning</i> <sup>®</sup> Z-6137 Silane	Aqueous solution of amino-functional silicone polymers; 22.5% active	Promotes adhesion of waterborne coatings to inorganic substrates	Waterborne polyester	Post add	0.1-5.0%	Water	Amino; silanol	Water	3-7	–
XIAMETER <sup>®</sup> OFS-6011 Silane	Aminopropyltriethoxysilane; 99% active	Adhesion promoter in waterborne and solventborne coatings and pigment treatment in waterborne coatings	Waterborne and solventborne acrylic, solventborne polyurethane	Grind or let-down	0.05-2.0%	Alcohols and water	Amino; ethoxy-silyl	None	<10	FDA 175.105
XIAMETER <sup>®</sup> OFS-6020 Silane	Aminoethylaminopropyl-trimethoxysilane; 99% active	Adhesion promoter and pigment treatment in waterborne and solventborne coatings	Waterborne and solventborne acrylic, alkyd, epoxy, polyurethane	Grind or let-down or post add	Primer: dilute to 10% active in isopropanol Additive: 0.5-2.0%	Alcohols and water	Amino; methoxy-silyl	None	<10	FDA 175.105, 176.300, 177.1390
XIAMETER <sup>®</sup> OFS-6030 Silane	3-methacryloxypropyl-trimethoxysilane; 98% active; when used as a primer, apply by dipping or brushing	Improves adhesion of waterborne, solventborne and radiation-cured coatings to inorganic substrates when used as a primer or additive	Waterborne and solventborne acrylic, alkyd, epoxy, polyester, polyurethane, vinyl; radiation-cured acrylic	Let-down or post add	Primer: dilute to 0.1-0.5% active in acidified (pH ~4.0) water Additive: 0.1-3.0%	Alcohols and water	Methacrylate; methoxy-silyl	None	2.3-2.7	FDA 177.2465
XIAMETER <sup>®</sup> OFS-6032 Silane <sup>5)</sup>	Cationic vinylbenzyl and amino-functional methoxy-silane; 40% active	Adhesion promoter in waterborne and solventborne coatings; can be used as an additive or primer	Waterborne and solventborne acrylic, epoxy	Grind or let-down or post add	Primer: dilute with methanol or ethanol mixed with water 10:1 Additive: 0.05-3.0 wt%	Alcohols and water	Amino; vinylbenzyl; methoxy-silyl	Methanol	1-3	FDA 175.300
XIAMETER <sup>®</sup> OFS-6040 Silane	Glycidoxypropyl-trimethoxysilane; 99% active; when used as a primer, apply by dipping or brushing	Adhesion promoter and pigment treatment in waterborne and solventborne coatings; can be used as an additive or primer	Waterborne and solventborne acrylic, alkyd, amine, epoxy, polyurethane, vinyl	Grind or let-down or post add	Primer: dilute to 10% active in isopropanol Additive: 0.05-3.0%	Alcohols and water	Epoxy; methoxy-silyl	None	2.95-3.20	FDA 177.1390
XIAMETER <sup>®</sup> OFS-6500 Silane	Vinyltrimethoxysilane; 99% active	Bonds with inorganic surfaces through alkoxy silane; forms siloxane crosslinks via moisture cure	Solventborne acrylic, alkyd, epoxy, polyurethane; UV-curable epoxy	Can be added during solventborne paint formulation at the pigment grind step	Additive: 0.05-1.0%	Alcohols and water	Vinyl; methoxy-silyl	None	0.56	–

(continued on pages 8, 9)

Table 1. Features, Typical Use and Properties of Additives from Dow Corning<sup>®</sup> (continued)

Product	Description	Features/Benefits	Compatible Binder Systems	Point of Addition	Typical Concentration <sup>2)</sup>	Suitable Diluents <sup>3)</sup>	Reactive Groups	Solvent	Viscosity at 25°C (77°F), cSt	FDA Food Contact Compliance <sup>4)</sup>
<b>Water Resistance</b>										
<i>Dow Corning</i> <sup>®</sup> 84 Additive	Low-viscosity emulsion of silicone elastomer precursors; 60% active	Provides water resistance for waterborne systems, particularly inks	Mainly acrylics	Let-down or post add	1.0-5.0%	Water	Silanol	Water	250-650	–
<i>Dow Corning</i> <sup>®</sup> 85 A Additive	Medium-viscosity emulsion of silicone elastomer precursors; 60% active	Provides water resistance for waterborne systems, particularly inks	Mainly acrylics	Let-down or post add	1.0-5.0%	Water	Silanol	Water	34,000-46,000	–
<i>Dow Corning</i> <sup>®</sup> 87 Additive	Emulsion; 38-44% actives	Provides water repellency and water beading for waterborne systems with minimal effect on water vapor permeability; particularly for decorative paints	Acrylic, styrene-acrylics and vinyl acetate emulsions	Let-down or post add	1.0-5.0%	Water	Ethoxy-silanol	Water	6	–
<i>Dow Corning</i> <sup>®</sup> 88 Additive	Silane/siloxane blend; 98% actives	Provides water repellency with minimal effect on water vapor permeability; can be used in waterborne systems containing polar solvents and solventborne systems; particularly for decorative paints	Acrylic, styrene-acrylics	Let-down or post add	1.0-5.0%	Aliphatic and aromatic hydrocarbons and polar solvents	Alkoxy-silanol	None	35	–
<i>Dow Corning</i> <sup>®</sup> 901H Additive	Silicone emulsion; 60% active	General-purpose low-VOC hydrophobe to improve water resistance and water contact angle	Water-based acrylic, styrene acrylic and VAE systems <i>NOTE: Always check compatibility before usage</i>	Let-down or post add	0.5-5.0%	Water	Alkoxy-silanol	Water	Not available	–
<i>Dow Corning</i> <sup>®</sup> 902H Additive	Silicone-resin-based emulsion; 50% active	Co-binder for high-PVC siloxane paints; decreases water absorption through hydrophobization of pores; can be combined with a beading additive to additionally achieve high water-contact angle	Water-based acrylic, styrene acrylic and VAE systems <i>NOTE: Always check compatibility before usage</i>	Let-down or post add	8.0-10.0%	Water	Alkoxy	Water	300-2,000	–
<i>Dow Corning</i> <sup>®</sup> 903H Additive	Alkoxysilane and silicone resin emulsion; 52.5% active	Provides hot-water resistance in waterborne wood coatings; improves water resistance in various waterborne coatings	Water-based acrylic, styrene acrylic and VAE systems <i>NOTE: Always check compatibility before usage</i>	Let-down or post add	0.5-5.0%	Water	Alkoxy	Water	Not available	–
<b>Leveling, Gloss</b>										
<i>Dow Corning</i> <sup>®</sup> 56 Additive	Arylalkyl-modified silicone; 100% active	Aids deaeration without destabilizing the curtain in solventborne curtain coatings; improves leveling and gloss; aids pigment orientation; good thermostability	Water-based acrylic, styrene acrylic and VAE systems	Grind or let-down or post add	0.05-0.5%	Aromatics such as xylene, toluene, mineral spirits and esters such as butyl acetate	None	None	1,125-1,645	–
<i>Dow Corning</i> <sup>®</sup> 57 Additive	Silicone polyether copolymer	Improves leveling, slip, mar resistance and gloss in waterborne and solventborne coatings; provides substrate wetting	<i>NOTE: Always check compatibility before usage</i>	Grind or let-down or post add	0.1-1.0%	Acetone, toluene, mineral spirits and isopropyl alcohol; dispersible in water	None	None	175-390	FDA 176.210 <sup>(6)</sup>
<i>Dow Corning</i> <sup>®</sup> 401LS Additive	Silicone polyether copolymer	Flow and leveling additive for solventborne and waterborne coatings; also lowers coefficient of friction to improve slip and hand feel; compatible with clear coats	Water-based acrylic, styrene acrylic and VAE systems	Grind or let-down or post add	0.05-1.0%	Alcohols, glycol ethers and aromatic solvents	None	None	100-250	Swiss Ordinance RS 817.023.21 Annex 6, Part B
<i>Dow Corning</i> <sup>®</sup> 402LS Additive	Silicone polyether copolymer	Effective flow and leveling additive for waterborne and radiation curable systems; also lowers coefficient of friction, giving good slip; suitable in pigmented and clear coat formulations	<i>NOTE: Always check compatibility before usage</i>	Let-down	0.1-1.0%	Alcohols, glycol ethers and aromatic solvents	Carbinol	None	280-400	Swiss Ordinance RS 817.023.21 Annex 6, Part B
<i>Dow Corning</i> <sup>®</sup> 8526 Additive	100% carbinol-functional silicone polyether	Provides leveling and slip with good compatibility in solventborne, waterborne and UV-curable coatings, inks and overprint varnishes	Solvent-based acrylic, epoxy, polyester and urethane systems; waterborne acrylic, polyester, epoxy and urethane systems; UV systems	Grind, let-down or post add	0.2-1.0%	Water, alcohols, toluene, xylene	Carbinol	None	1,552	–



Table 1. Features, Typical Use and Properties of Additives from Dow Corning<sup>®11</sup> (continued)

Product	Description	Features/Benefits	Compatible Binder Systems	Point of Addition	Typical Concentration <sup>12</sup>	Suitable Diluents <sup>13</sup>	Reactive Groups	Solvent	Viscosity at 25°C (77°F), cSt	FDA Food Contact Compliance <sup>14</sup>
<b>Wetting</b>										
<i>Dow Corning</i> <sup>®</sup> 67 Additive	Silicone polyether copolymer	Imparts spreading and wetting in waterborne and radiation-curable coatings on difficult substrates, e.g., low-energy substrates such as polyethylene, polypropylene, polyester; suitable in inks, decorative and industrial coatings for plastic, metal and wood	Waterborne acrylic, alkyd, polyurethane	Let-down or post add	0.1-0.4%	Isopropyl alcohol, acetone; dispersible in water	Carbinol	None	31-51	–
<i>Dow Corning</i> <sup>®</sup> 500W Additive	Silicone polyether copolymer	Imparts enhanced substrate wetting in waterborne and radiation curable systems; suitable across a wide range of substrates, including wood and plastics; stable at high pH	Waterborne acrylic and polyurethane; radiation-curable acrylic	Let-down	0.1-0.4%	Isopropyl alcohol, acetone and toluene; dispersible in water	None	None	25.5-29.5	–
<i>Dow Corning</i> <sup>®</sup> 501W Additive	Silicone polyether copolymer	Imparts enhanced substrate wetting in waterborne and radiation curable systems; suitable across a wide range of substrates, including wood and plastics	Waterborne acrylic and polyurethane; radiation-curable acrylic	Let-down	0.1-0.4%	Isopropyl alcohol, acetone and toluene; dispersible in water	None	None	10-30	–
<i>Dow Corning</i> <sup>®</sup> 502W Additive	Silicone polyether copolymer	Imparts enhanced substrate wetting in waterborne and radiation curable systems; suitable across a wide range of substrates, including wood and plastics	Waterborne acrylic and polyurethane; radiation-curable acrylic	Let-down	0.1-0.4%	Isopropyl alcohol, acetone and toluene; dispersible in water	Carbinol	None	49-75	–
<b>Texturing (Matting and/or Tactile Effects)</b>										
<i>Dow Corning</i> <sup>®</sup> 23N Additive	Powder consisting of transparent spherical silicone elastomer particles with epoxy functionality; average particle diameter of 1-3 microns	Imparts mar and abrasion resistance with a smooth, matte finish to waterborne and solventborne coatings	Waterborne and solventborne acrylic, polyurethane	Best added to a portion of the resin/solvent system under high shear conditions prior to blending into the final formulation	0.5-5.0%	Solvents such as glycols, glycol ethers, alcohols, water with co-solvents such as acetone	Epoxy	None	NA	–
<i>Dow Corning</i> <sup>®</sup> 33 Additive	Waterborne suspension of spherical silicone elastomer particles with epoxy functionality; median particle diameter of 3-4 microns; 46% active	Imparts a silky, smooth, matte finish to waterborne coatings	Waterborne acrylic, polyurethane	Post add	2-10%	Water	Epoxy	Water	<150	–
<i>Dow Corning</i> <sup>®</sup> 61 Additive	10% silicone in solvent	Imparts a hammertone finish to metal surfaces	Primarily solventborne; some waterborne	Final thinning stage or prior to let-down	0.05-0.5%	Aromatic solvents such as xylene or toluene, mineral spirits, or ketones	None	Ethylbenzene, xylene	120	–

<sup>11</sup> These values are not intended for use in preparing specifications.

<sup>12</sup> The typical concentrations are usage levels where the materials have performed successfully. Usage levels can vary depending on application and performance requirements. Please evaluate for optimum performance in each specific application.

<sup>13</sup> Review the Safety Data Sheet for each solvent prior to use. Safety Data Sheets can be obtained from your solvent supplier.

<sup>14</sup> Compliant at effective date of publication of this selection guide.

**EU Legislation** – Visit our EH&S Portal at [dowcorning.com/EHS](http://dowcorning.com/EHS) or contact our EH&S team at [dowcorning.com/EHS](mailto:dowcorning.com/EHS) to obtain food contact regulatory status information, including FDA, EU, Swiss Ordinance and German BFR clearance.  
**FDA Title 21 CFR** – 175.105, 175.300, 175.320 Indirect food additives; adhesives and components of coatings; 176.176.130, 176.170, 176.180, 176.200, 176.210 Indirect food additives; paper and paper board components; 177.177.1390, 177.2600, 177.4520(b) Indirect food additives; polymers.

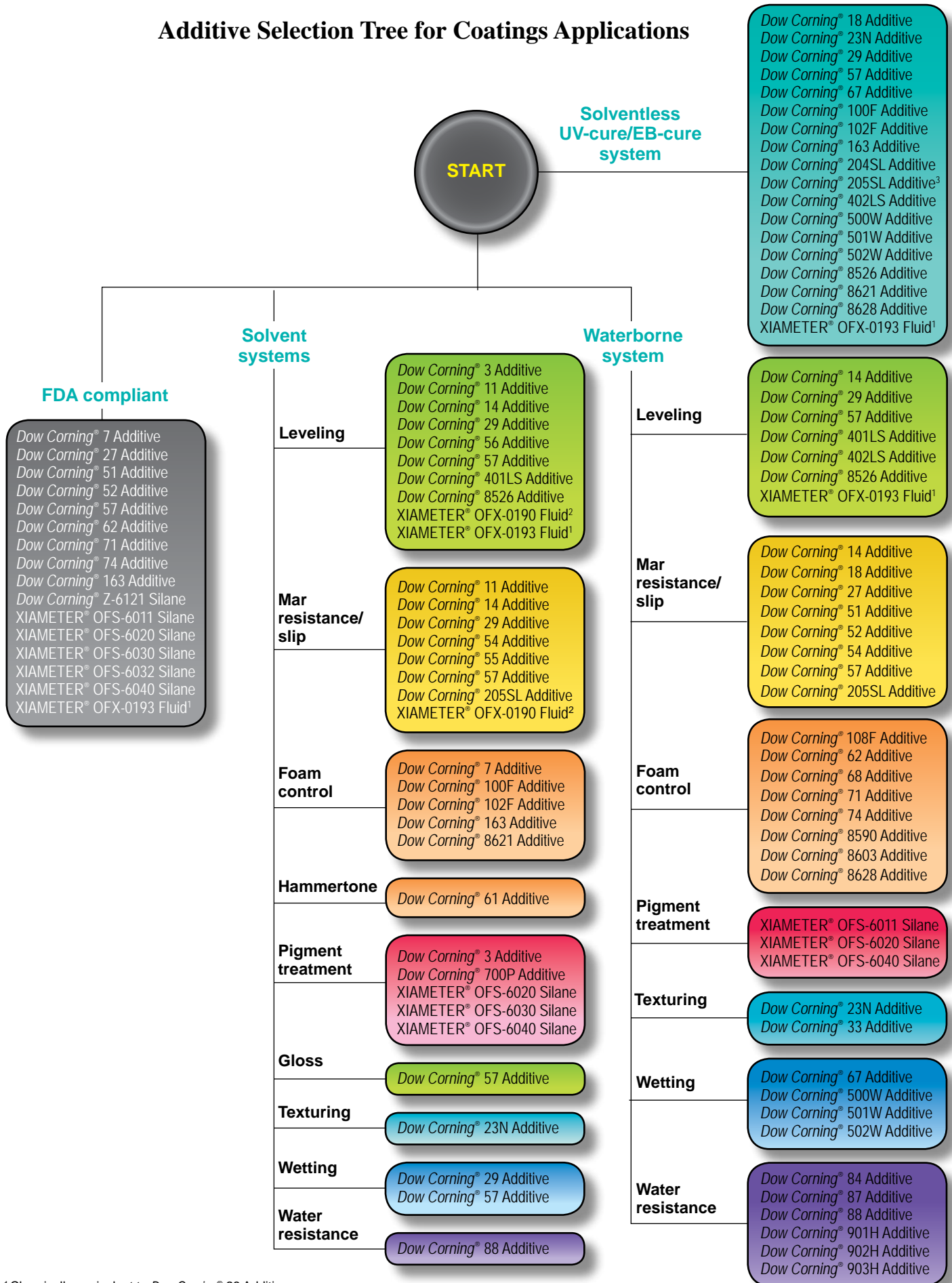
<sup>15</sup> Chemically equivalent to *Dow Corning*<sup>®</sup> 19 Additive.

<sup>16</sup> Chemically equivalent to *Dow Corning*<sup>®</sup> 28 Additive.

<sup>17</sup> Chemically equivalent to *Dow Corning*<sup>®</sup> Z-6032 Silane.

NA = Not Applicable.

# Additive Selection Tree for Coatings Applications

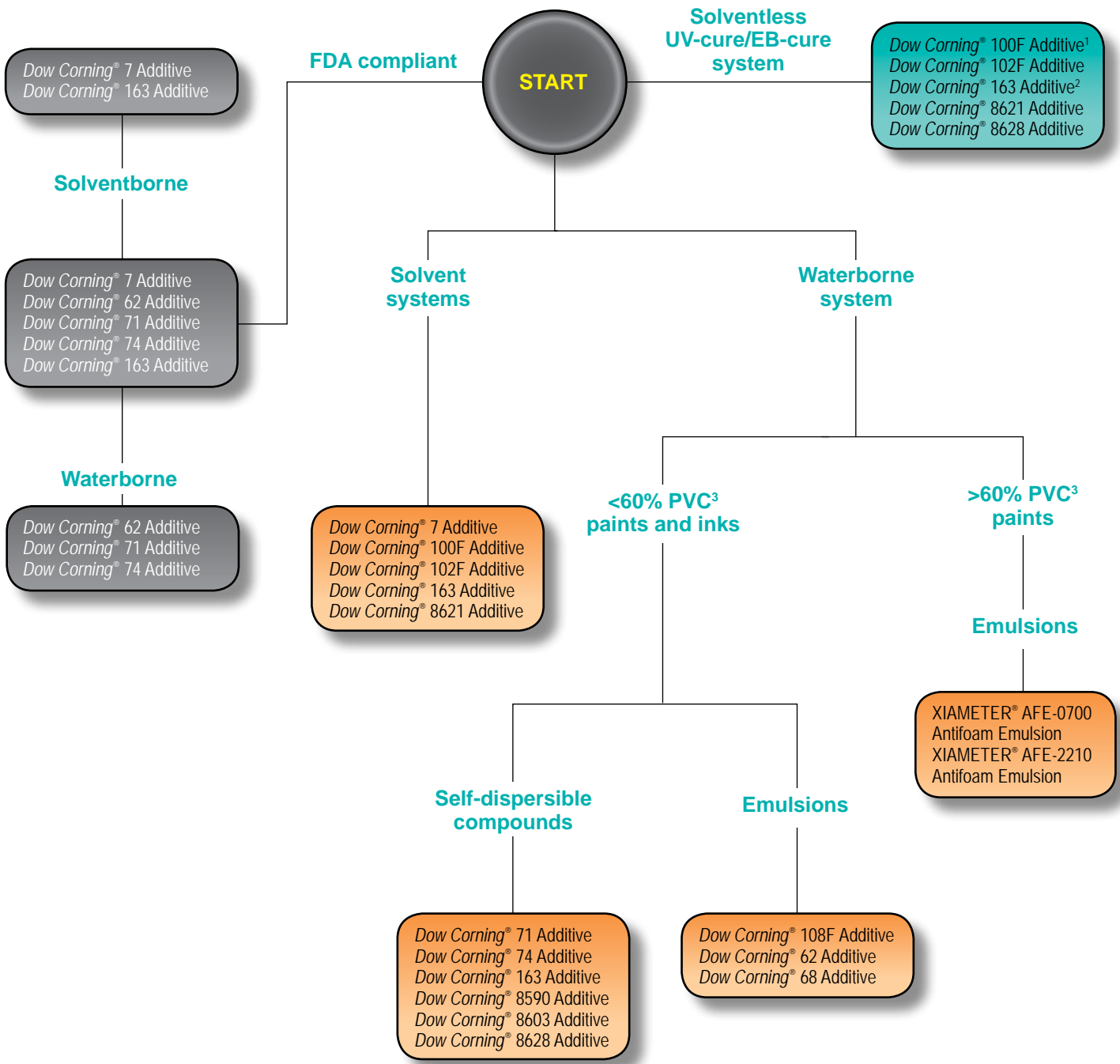


<sup>1</sup> Chemically equivalent to Dow Corning® 28 Additive.

<sup>2</sup> Chemically equivalent to Dow Corning® 19 Additive.

<sup>3</sup> 50% active in ethylene glycol isopropyl ether.

# Foam Control Additive Selection Tree for Coatings Applications

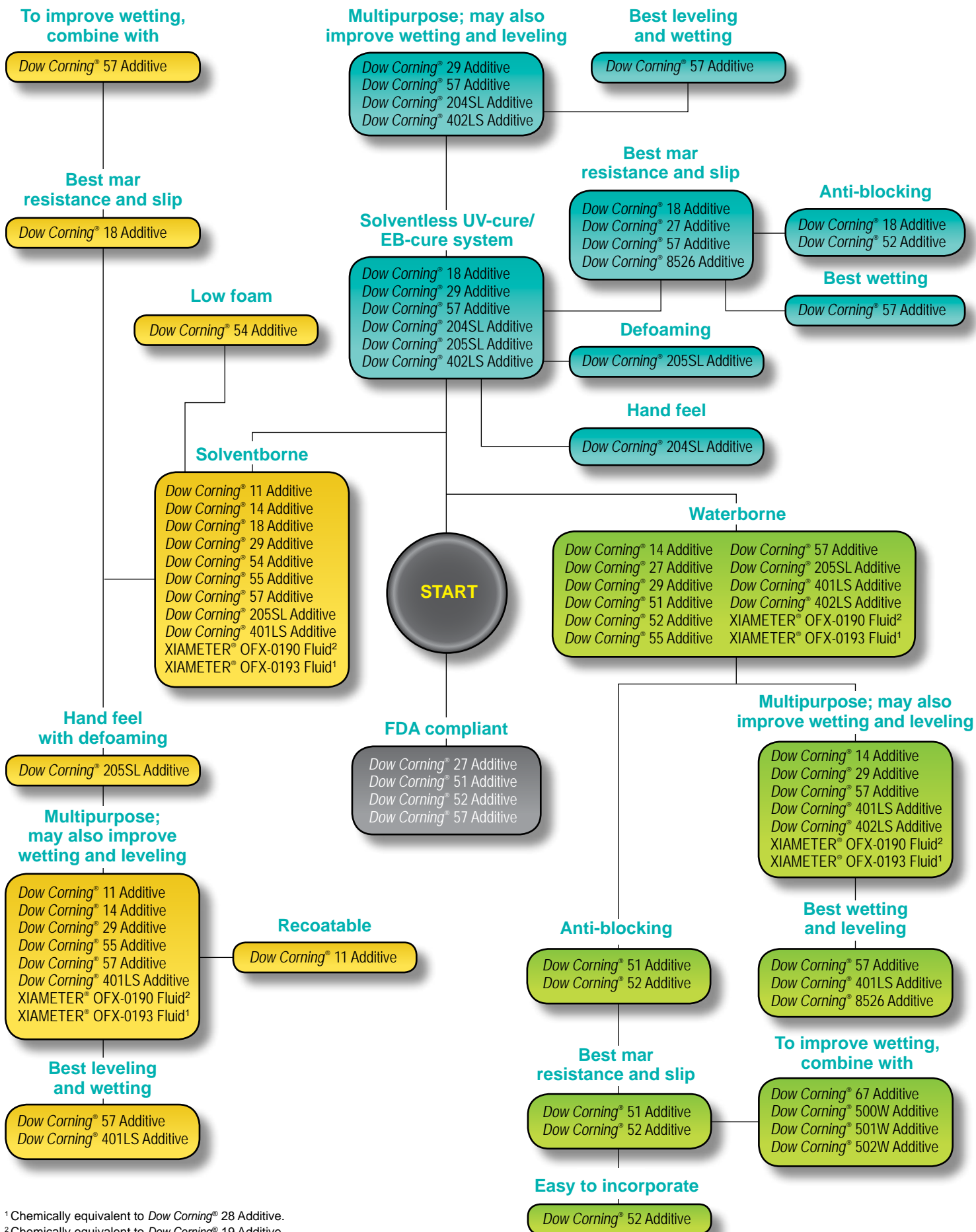


<sup>1</sup> 50% active in ethylene glycol isopropyl ether.

<sup>2</sup> 1% active in diisobutyl ketone.

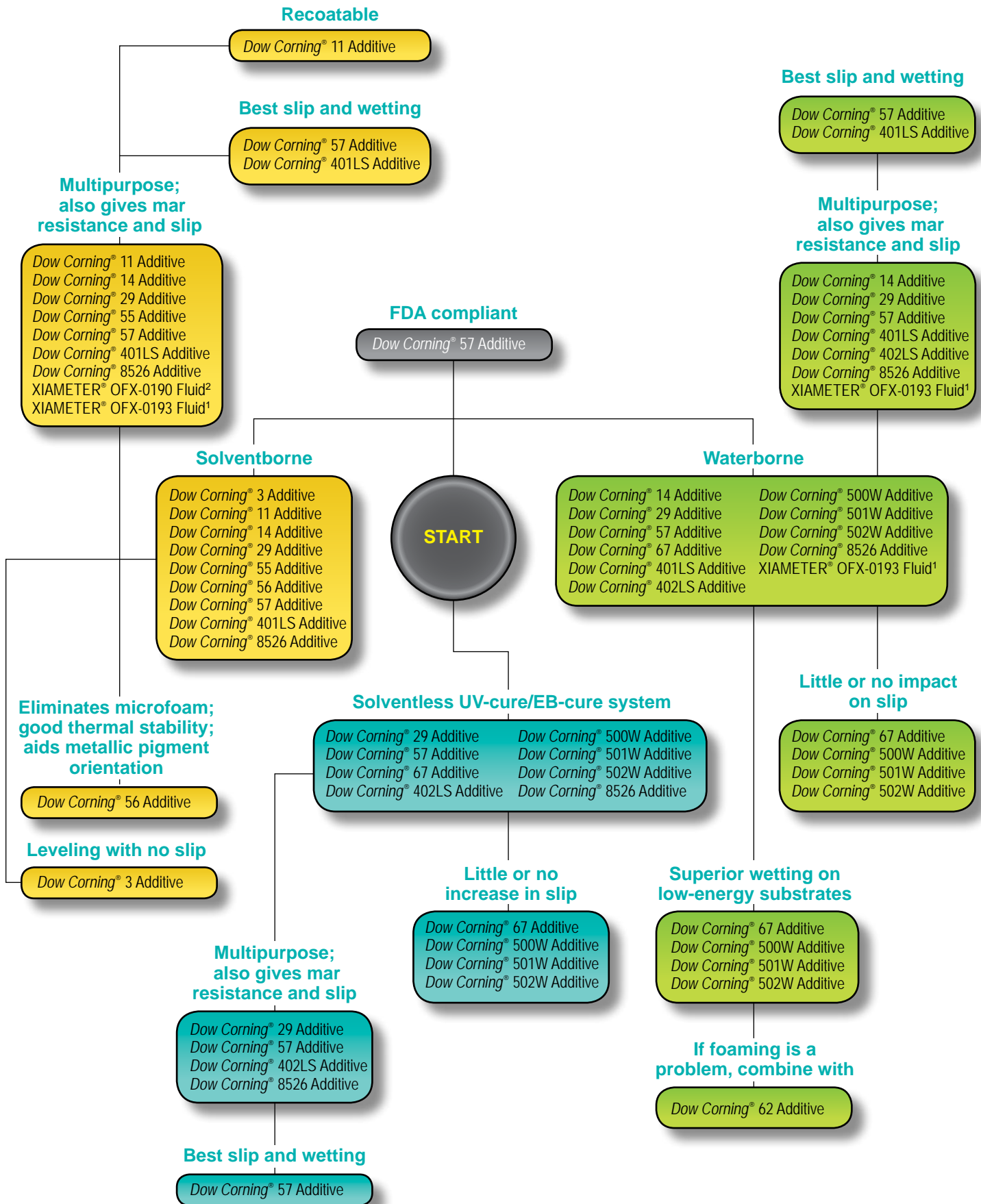
<sup>3</sup> Pigment volume concentration.

# Mar-Resistant/Slip Additive Selection Tree for Coatings Applications



<sup>1</sup> Chemically equivalent to Dow Corning® 28 Additive.  
<sup>2</sup> Chemically equivalent to Dow Corning® 19 Additive.

# Leveling and Wetting Additive Selection Tree for Coatings and Ink Applications



<sup>1</sup> Chemically equivalent to Dow Corning® 28 Additive.

<sup>2</sup> Chemically equivalent to Dow Corning® 19 Additive.



**Table 2. Additive Selection Table**

Use this chart to identify the additives that meet your performance requirements.

	Systems			Properties						Markets			
	Waterborne	Solventborne	Radiation Cure	Mar Resistance & Slip	Leveling & Wetting	Foam Control	Pigment Treatment	Water Resistance	Texturing (matting and/or tactile effects)	Industrial Wood & Trim	Industrial (Other)	Architectural Wall	Inks & OPVs
<b>Dow Corning® 11 Additive</b>													
<b>Dow Corning® 14 Additive</b>													
<b>Dow Corning® 18 Additive</b>													
<b>Dow Corning® 27 Additive</b>													
<b>Dow Corning® 29 Additive</b>													
<b>Dow Corning® 51 Additive</b>													
<b>Dow Corning® 52 Additive</b>													
<b>Dow Corning® 54 Additive</b>													
<b>Dow Corning® 55 Additive</b>													
<b>Dow Corning® 204SL Additive</b>													
<b>Dow Corning® 205SL Additive</b>													
<b>Dow Corning® 7 Additive<sup>1</sup></b>													
<b>Dow Corning® 62 Additive</b>													
<b>Dow Corning® 68 Additive</b>													
<b>Dow Corning® 71 Additive</b>													
<b>Dow Corning® 74 Additive</b>													
<b>Dow Corning® 100F Additive</b>													
<b>Dow Corning® 102F Additive</b>													
<b>Dow Corning® 108F Additive</b>													
<b>Dow Corning® 163 Additive</b>													
<b>Dow Corning® 8590 Additive</b>													
<b>Dow Corning® 8603 Additive</b>													
<b>Dow Corning® 8621 Additive</b>													
<b>Dow Corning® 8628 Additive</b>													

(continued on page 15)

Table 2. Additive Selection Table (continued)

	Systems			Properties						Markets			
	Waterborne	Solventborne	Radiation Cure	Mar Resistance & Slip	Leveling & Wetting	Foam Control	Pigment Treatment	Water Resistance	Texturing (matting and/or tactile effects)	Industrial Wood & Trim	Industrial (Other)	Architectural Wall	Inks & OPVs
<b>Dow Corning® 3 Additive</b>													
<b>Dow Corning® 700P Additive</b>													
<b>Dow Corning® 84 Additive</b>													
<b>Dow Corning® 85 Additive</b>													
<b>Dow Corning® 87 Additive</b>													
<b>Dow Corning® 88 Additive</b>													
<b>Dow Corning® 901H Additive</b>													
<b>Dow Corning® 902H Additive</b>													
<b>Dow Corning® 903H Additive</b>													
<b>Dow Corning® 56 Additive</b>													
<b>Dow Corning® 57 Additive</b>													
<b>Dow Corning® 401LS Additive</b>													
<b>Dow Corning® 402LS Additive</b>													
<b>Dow Corning® 8526 Additive</b>													
<b>Dow Corning® 23N Additive</b>													
<b>Dow Corning® 33 Additive</b>													
<b>Dow Corning® 67 Additive</b>													
<b>Dow Corning® 500W Additive</b>													
<b>Dow Corning® 501W Additive</b>													
<b>Dow Corning® 502W Additive</b>													

<sup>1</sup>Availability may be limited by region.





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