

FUMED METAL OXIDES



Fumed silica and fumed alumina application and selection guide



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	APPLICATION
Adhesives	Structural
	Non-structural
Chemical mechanical planarization (CMP)	Polishing slurries
Coatings	Powder coating
	Clear coat
	Liquid coating
	UV-curing coating
Composites	Laminating resin
	Gel coat
	Casting resin
	Bonding paste
Food	Powdered food
Inkjet media	Photo glossy paper coating
	Satin, semi-glossy film and paper coating
	Coated paper and PVC film (backlit, banner)
Miscellaneous	Cable gel
	Fluorescent lamps
	Pheromone gel
	Transparent shoe sole
Personal care and cosmetics	Color make-up (optical wrinkle reduction)
	Lipsticks and mascara
	Nail polish
	Antiperspirant (gels, sticks, roll-on)
	Fragrance
	Hair and body care
Pharmaceuticals	Pharmaceutical tableting
	Powders
	Gel, cream, lotion and ointment
Printing inks	Liquid inks
	Lithographic printing inks
	Screen printing inks
Non-silicone sealants	Other applications
Silicone elastomers	RTV-silicone sealant (1 component)
	RTV-molding compound (2 components)
	HTV-silicone (1 and 2 components)
Toners	LSR
	Dual component
	Monocomponent magnetic
	Monocomponent non-magnetic

To access all the specific segment and product brochures, go to: <http://www.cabot-corp.com/fmo>

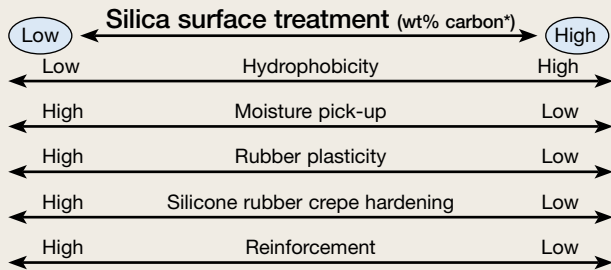
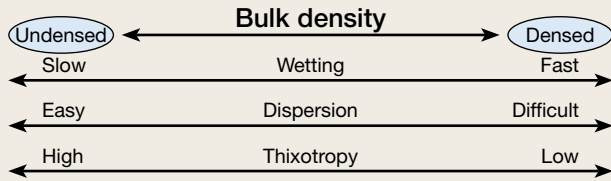
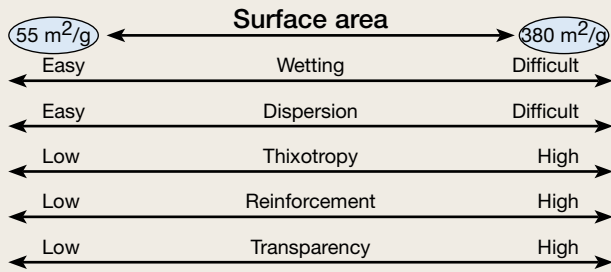
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CARRIER/SYSTEM	PRIMARY PERFORMANCE CRITERIA
Epoxy, acrylics	Thixotropy, sag resistance, constant viscosity over storage time
Rubber (neoprene, butyl, polychloroprene), solvent	Sag resistance, anti-settling
Epoxy, polyurethane, PVC, PVAc, silyl modified polymer	Sag resistance, rheology control, anti-settling
Cyanoacrylate	Sag resistance
Aqueous	Polishing, Planarity
Corona charging	Fluidization (free flow), surface smoothness, stability and transfer efficiency
Tribo charging (teflon, nylon tubes)	Surface quality, orange peel reduction, anti-caking, gloss and stability
Polyurethane, acrylic, epoxy ester, amino	High gloss, rheology control, sag resistance, leveling
Solvent-based or high solid coating	Anti-settling, sag resistance, flatting
Acrylic, polyester, nitrocellulose	Sag resistance, rheology control, anti-settling
Epoxy, vinylester, polyurethane	Sag resistance, rheology control, anti-settling
Polychromatic finishes (metal flakes)	Metallic flake orientation
Industrial and marine	Corrosion protection, moisture resistance
All systems	Sag resistance, rheology control, abrasion resistance
Vinylester, epoxy, polyester	
Vinylester, epoxy, polyester	
Polyurethane	Thickening, rheology control, anti-settling
Vinylester, epoxy, polyester	
Flavors (hydrolyzed vegetable protein)	Anti-caking, free flow, storage life
Gums (guar, xanthan)	Free flow (pharmaceutical use), anti-caking
Dry soup, spice, flavors	Free flow, anti-caking, color hue
Polyvinyl alcohol or pyrrolidone, co-solvent	Absorption capacity, instant drying, gamut, adhesion, high gloss
Polyvinyl alcohol	Fast drying, ink absorption, gamut, transparency
Polyvinyl alcohol, PVC or paper substrate	Fast drying, ink absorption, gamut, transparency
Undisclosed	Thickening
Phosphor, dispersant, water	Coating binding and adhesion, light transmission
Various oils	Thickening
Silicone rubber	Thickening
De-ionized water, mineral oil, colors, fillers	Light scattering and light diffusion, matting, long lasting
All systems	Rheology, viscosity, temperature stability
All systems	Anti-settling
Cyclomethicone, dimethicone, aluminum chlorohydrate	Anti-settling, hydrophobicity, adsorbent, stability
Natural and essential oils	Adsorbent, encapsulation, carrier, anti-caking, free-flow
Gels, shampoo, lotion: water/oil, oil/water emulsions	Rheology, viscosity, suspension, anti-settling, stability
Lotion: water, water/oil emulsions	Light absorption, matting
Sunscreen: water, glycerin, benzene groups	Suspension, anti-settling, water resistance
Microcrystalline cellulose, other fillers, active ingredient	Free-flow, weight and content uniformity, tablet hardness, reduced compaction
Active, flavors, fillers (lactose)	Free-flow, reduced powder segregation
Water/oil based emulsion	Suspension, anti-settling, heat stability, transparency
Essential and natural oils, active ingredient	Thickening, gelling (soft and hard gel), transparency, suspension, anti-settling
Solvent/aqueous/oil based	Rheology control, anti-settling, anti-misting
Oil based	Rheology control, hydrophobicity, anti-misting
All resin systems	Rheology control
PVC, polyurethane, acrylic resins	Sag resistance, rheology control, anti-settling
Butyl rubber and others	Reinforcement
	Rheology control, reinforcement, sag resistance, dispersability, surface quality
	Reinforcement, sag resistance, dispersability, surface quality, life duration
Silicone resin	Reinforcement, elongation, transparency, ease of compounding
	Rheology control, sag resistance, reinforcement, anti-settling
Polyester or styrene acrylic	Tribocharging (positive or negative)
Positive or negative charging	Freeflow
Color or black	Spacing
Chemical or conventional	Antiblocking
	Transfer efficiency
	Durability

	GRADES
	CAB-O-SIL® TS-720, EH-5, TS-382, M-5, TS-610, TS-530
	CAB-O-SIL M-5, H-5, EH-5, TS-720, TS-610, TS-530, TS-382
	CAB-O-SIL M-5, H-5, EH-5, TS-610, TS-382, TS-720
	CAB-O-SIL TS-720, M-5
	CAB-O-SIL EL-1000, EL-2000
at low loading	CAB-O-SIL CT-1221, TS-530, TS-610, M-5, H-5, HS-5, EH-5, CT-1111G
	SpectrAI® 51, 81, 100
	CAB-O-SIL CT-1206, TS-530, TS-610, M-5, EH-5
	CAB-O-SIL M-5, H-5, HS-5, EH-5, M-7D, TS-720, TS-610, TS-530, CAB-O-SPERSE® 2020K
	CAB-O-SIL M-5, EH-5, CAB-O-SPERSE 2020K
	CAB-O-SIL TS-720, TS-610
	CAB-O-SIL M-5, H-5, HS-5, EH-5, TS-720, TS-610, TS-530
	CAB-O-SIL TS-610, TS-720, TS-530
	CAB-O-SIL M-5, TS-610
	CAB-O-SIL TS-720, TS-610, HP-60, M-5, PTG, H-5, EH-5
	CAB-O-SIL TS-720, TS-610, HP-60, M-5, PTG, H-5, EH-5
	CAB-O-SIL TS-610, TS-720
	CAB-O-SIL TS 720, TS 610, TS 382
	CAB-O-SIL M-5P, M-5DP
	CAB-O-SIL M-5P, M-5DP
	CAB-O-SIL M-5, M-5P, M-5DP, EH-5
	CAB-O-SPERSE PG003, PG022, PG008, SpectrAI 51, 81, CAB-O-SIL, M5, MS-55, H-300
	CAB-O-SPERSE PG001, PG002, PG008, SpectrAI 51, 81, CAB-O-SIL, M5, MS-55, H-300
	CAB-O-SPERSE PG001, PG002, PG008, SpectrAI 51, 81, CAB-O-SIL, M5, MS-55, H-300
	CAB-O-SIL M-5, TS-720
	SpectrAI 51, 81, 100
	CAB-O-SIL M-5
	CAB-O-SIL HP-60
	SpectrAI PC-401
	CAB-O-SIL M-5, H-5, HS-5, EH-5
	CAB-O-SIL M-5, H-5, HS-5, EH-5
	CAB-O-SIL M-5, TS-530, TS-610
	CAB-O-SIL TS-530, TS-610, M-5, H-5, HS-5, EH-5
	CAB-O-SIL TS-610, TS-530, M-5
	SpectrAI PC-401
	CAB-O-SIL M-5, H-5, HS-5, EH-5, TS-610, TS-720
acting forces, increased processing speeds	
	CAB-O-SIL M-5P, M-5DP
ling, heat stability	
	CAB-O-SIL M-5, HS-5, EH-5, TS-720
	CAB-O-SIL TS-610, TS-720, M-5, HS-5, EH-5
	CAB-O-SIL M-5, TS-720
	CAB-O-SIL TS-720, LM-150, M-5, TS-530
	CAB-O-SIL TS-610, TS-720, M-5
ality, life duration	CAB-O-SIL LM-150, LM-150D, M-7D, M-5, TS-610, TS-622, TS-630
	CAB-O-SIL LM-150, LM-150D, M-5, EH-5, TS-530, TS-620
	CAB-O-SIL M-5, H-5, EH-5, TS-610, TS-720, MS-35, H-300, TS-620, TS-630, TS-720D (EH-5 optimum for transparency)
	CAB-O-SIL M-5, H-5, EH-5, TS-530, TS-530D, H-300, MS-35
	CAB-O-SIL™ TG-810G, TG-811F, TG-828F, TG-829F, TG-C series
	CAB-O-SIL TG-820F, TG-C series
	CAB-O-SIL TG-810G, TG-811F, TG-820F, TG-828F, TG-C series
	CAB-O-SIL TG-810G, TG-811F, TG-308F, TG-820F, TG-C series



**Dispersing CAB-O-SIL and SpectraI fumed metal oxides
as related to:**



* See product data sheet for detailed info: www.cabot-corp.com

Cabot in the world

With business extending in 19 countries, Cabot has 5 fumed metal oxides manufacturing facilities in the world, besides research and development facilities focused in developing new products and technology and bringing new solutions to our customers.



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This brochure has been developed on basis of customers' feedback.

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