JEBSEN & JESSEN

JebChem

MATTING AGENTS

FOR COATING & INK INDUSTRIES

MATTING AGENTS

JEBCHEM MATTING AGENTS provide excellent properties for all coatings related technologies, including industrial applications such as coil and wood coatings, printing inks and decorative coatings.

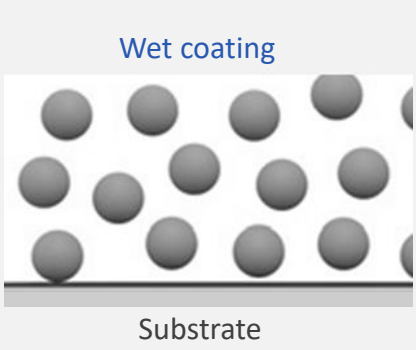
- Consistent quality
- Easy dispersibility
- Good suspension behaviour in liquid coating systems
- High shear stability, resistance to overgrind
- No formation of hard sediments in the coatings during storage
- No effect on drying properties
- High matting power with small amounts
- High transparency
- No haze formation

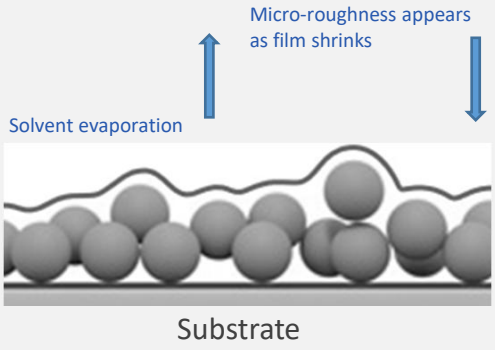
Product Code	Special Features
JebChem 7311 (3.0 µm) (Oil absorption : 300)	An untreated Silica with the finest particle size in the series produced from an advanced gel precipitation process is recommended for synthetic leather matting for furniture and auto interiors. Benefited from the fine particle Silica, the coating film has a good touch and better scratch resistance.
JebChem 7353-1 (3.0 µm) (Oil absorption: 250)	An untreated Silica with the finest particle size in the series produced from an advanced gel precipitation process; recommended matting for clear topcoat on furniture. Benefited from the fine particle Silica, the coating film has a better scratch resistance.
JebChem 7411 (4.0 µm) (Oil absorption: 270)	An organically treated Silica with fine particles produced from an advanced chemical precipitation process. It is suitable for high-end wood furniture and general industrial coatings, with a medium gloss and smooth surface.
JebChem 7422 (4.0 µm) (Oil absorption: 270)	A wax-treated Silica with fine particles produced from an advanced chemical precipitation process improves the clarity of the clear coat. With a high pore volume, it is suitable for high-end wood furniture and general industrial coating, with a medium gloss and smooth surface.
JebChem 7353 (5.0 µm) (Oil absorption: 270)	A non-surface treated Silica produced from the gel precipitation process. With a high pore volume of the Silica agglomerates, the product provides high clarity, especially in clear wood furniture coating. The fine particle size gives the coating surface a smooth touch with a medium gloss.
JebChem 7432 (5.0 µm) (Oil absorption: 250)	A wax-treated Silica with fine particles produced from an advanced gel precipitation process. It is recommended for water-based coatings for general industry and printing ink applications.
JebChem 7020 (5.0 µm) (Oil absorption: 280)	A wax treated Silica with fine particle produced from advanced gel precipitation process, fit to used for medium gloss in general industrial, decorative and wood furniture coatings. Fit to printing inks applications as well, recommended for general purpose matting i.e., in gravure or flexo inks.
JebChem 7602-1 (5.0µm) (Oil absorption: 300)	An organic treated Silica with fine particles produced from an advanced chemical precipitation process, fit to be used in general industrial, decorative, and furniture coatings.

Product Code	Special Features
JebChem 7531 (5.0µm) (Oil absorption: 270)	A wax-treated Silica with fine particles produced from an advanced gel precipitation process is suitable for medium gloss in general industrial, decorative, and wood furniture coatings. Fit to printing inks applications, recommended for general purpose matting i.e., in gravure or publication inks.
JebChem 7513 (5.0 µm) (Oil absorption : 160)	An organic and wax-treated Silica is produced from an advanced gel precipitation process. The special surface treatment makes the product easier to disperse in high loading. It is specially applied to UV curtain coatings in wood furniture.
JebChem 7412-2 (6.0 µm) (Oil absorption : 270)	An organic and wax-treated Silica produced from an advanced gel precipitation process, fit to be used in general industrial, decorative, and wood furniture with UV curtain and roller coatings.
JebChem 7602 (6.0 µm) (Oil absorption: 300)	An organic treated Silica with fine particles produced from an advanced chemical precipitation process, commonly used in general industrial.
JebChem 7810 (6.0 µm) (Oil absorption : 330)	A wax-treated Silica with fine particle size is produced from an advanced gel precipitation process. It is specially designed for plastic coatings, i.e., in 3C and other consumer products. It is also widely used in auto interior parts. When combined with a soft-touch binder, the coating gives a very good hand feel.
JebChem 7230 (6.0 µm) (Oil absorption : 270)	A wax treated Silica produced from advanced gel precipitation process. With high porosity of the silica particles, it benefits a high matting effectiveness with excellent transparency in non-pigmented coatings. The product is specially designed to high ended wood furniture as well decorative industrial coatings
JebChem 7500-2 (7.0 µm) (Oil absorption : 270)	An organic and wax-treated Silica produced from an advanced gel precipitation process. It benefits from very low foam formation and is recommended for applications such as UV curtain coating and roller coatings.
JebChem 7750 (7.0 µm) (Oil absorption: 280)	A non-surface treated Silica produced from the gel precipitation process. It's a general-purpose Silica suitable for a pigmented coating system. It's widely applied in general industrial coatings, especially steel and coil coatings.
JebChem 7900 (7.0. µm) (Oil absorption: 280)	a non surface treated Silica produced from advanced gel precipitation process. It's a general purpose Silica suitable for pigmented coating system. It's widely applied in general industrial coatings, especially steel and Aluminum coil coatings.
JebChem 7910 (11.0 µm) (Oil absorption: 270)	A non-surface treated Silica produced from the gel precipitation process, the coarsest particle size in the series. Benefit in high matting efficiency with a very low sheen, suitable for the pigmented system. It's widely applied in coil coatings, especially in the construction industry, as well as in flooring of large surface areas with a uniform gloss appearance.
JebChem 7412 (7.0 µm) (Oil absorption: 250)	High performance silica developed for a variety of applications in paint & coatings
JebChem 7520 (9.0 µm) (Oil absorption: 250)	High performance silica developed for a variety of applications in paints & coatings, wood coatings, coil coatings and metallic coatings
JebChem 7606 (5.0µm) (Oil absorption: 230)	High performance silica developed for a variety of applications in paints & coatings
JebChem 7608 (6.0µm) (Oil absorption: 225)	High purity gives excellent physical and chemical properties to coating films, especially anti-scratch and anti-bending properties. The wax treatment upgrades smoothness, thus decreasing scratches in front and back rolling. This series won't generate hard precipitation even with long-time storage
JebChem 7609 (8.0 µm) (Oil absorption: 230)	High performance silica developed for a variety of applications such as high-grade furniture coatings, PU/NC/AC wood coatings, industrial coatings and inks
JebChem 7790 (6.0µm) (Oil absorption: 250)	High purity gives excellent physical and chemical properties to coating films, especially anti-scratch and anti-bending properties. In addition, the wax treatment product upgrades smoothness, thus it decreases scratches on front and back of rolling

PRODUCT RANGE – MATTING AGENTS

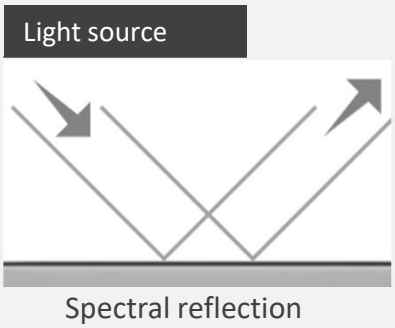
MECHANISMS OF MATTING

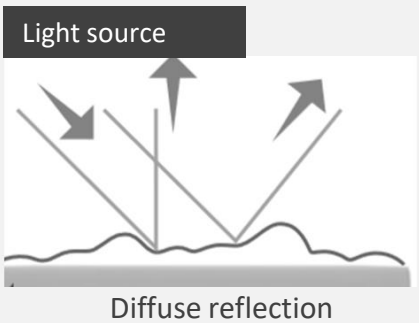




After the paint film dries, the dispersed matting agent particles within the applied film create a micro-roughening of the surface and film shrinkage occurs

SURFACE STRUCTURE AND GLOSS





The incident light is diffusely reflected from this micro-rough surface conveying the impression of a low gloss or matt appearance

PRODUCT RANGE – MATTING AGENTS

JebChem

We Solve Challenges

PRODUCT FAMILY

Typical Value	Unit	7353-1	7411	7422	7433
Surface treatment	-	Organic	Organic	Organic Wax	Organic
DBP oil absorption following ASTM D281-12	g/100 g	220-250	250-270	250-270	320-350
Porosity	ml/g	1.8	1.8	2.0	1.8
pH value in 5% dispersion following ISO 787-9	-	6-7	5-7	6-8	6-8
Loss of drying, 2hr at 105 °C following ISO 787-2	%	≤ 5	≤ 5	≤ 6	≤ 5
Particle size Malvern method	µm	3.0	4.0	4.0	4.0
Whiteness	%	≥ 93	≥ 93	≥ 93	≥ 93
Silica content following ISO 3236-19	%	≥ 99	≥ 99	> 99	> 99

Aerogel Silica

Precipitated Silica

Universal for both s/b & w/b

Focus on surface treatment type of product

High transparent coating film compared to market

Provides added value and competitiveness

Typical Value	Unit	7412	7602	7606	7607	7608	7609	7790	7810	7900	7602-1
Surface treatment	-	Special	Organic	Organic	Organic	Organic	Organic	Special	Organic	None	Organic
DBP oil absorption following ASTM D281-12	g/100 g	220-270	275-315	210-260	240-280	210-260	220-280	220-270	310-350	220-280	275-300
Porosity	ml/g	1.8	1.6	1.8	1.8	1.9	1.7	1.9	1.9	1.8	1.6
pH value in 5% dispersion following ISO 787-9	-	3-4	6-7	6-8	6-8	6-8	6-7	5-8	7-9	6-8	6-8
Loss of drying, 2hr at 105 °C following ISO 787-2	%	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5
Particle size Malvern method	µm	8.0	6.0	5.0	6.0	6.0	8.0	6.0	6.0	7.0	5
Whiteness	%	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93
Silica content following ISO 3236-19	%	≥ 99	> 98	> 99	> 99	➢ 99	> 99	> 99	> 99	> 99	> 98

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* The values indicated on this publication describe typical properties and do not constitute specification limits.

PRODUCT RANGE – MATTING AGENTS

JebChem

We Solve Challenges

PRODUCT FAMILY

Typical Value	Unit	7910	7520
Surface treatment	-	Non	Organic Wax
DBP oil absorption following ASTM D281-12	g/100 g	250-280	240-270
Porosity	ml/g	1.8	1.8
pH value in 5% dispersion following ISO 787-9	-	6-7	3-4
Loss of drying, 2hr at 105 °C following ISO 787-2	%	≤ 6	≤ 5
Particle size Malvern method	µm	11.0	10.0
Whiteness	%	≥ 93	≥ 93
Silica content following ISO 3236-19	%	≥ 99	> 98

Aerogel Silica

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Typical Value	Unit	7851	7500-2	7750	7020	7030	7432	7513	7412-2	7230
Surface treatment	-	Organic Wax	Organic Wax	Non	Organic Wax	Organic Wax	Organic Wax	Organic Wax	Organic Wax	Organic Wax
DBP oil absorption following ASTM D281-12	g/100 g	230-260	240-270	240-270	250-280	220-280	220-250	140-160	240-270	240-270
Porosity	ml/g	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.0
pH value in 5% dispersion following ISO 787-9	-	6-7	6-7	6-8	6-7	6-7	6-7	6-8	6-7	6-7
Loss of drying, 2hr at 105 °C following ISO 787-2	%	≤ 5	≤ 6	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5
Particle size Malvern method	µm	8.0	6.5	7.0	5.0	6.5	6.0	5.0	5.5	6.5
Whiteness	%	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93
Silica content following ISO 3236-19	%	≥ 99	> 98	> 99	> 99	> 99	> 99	> 99	> 99	> 98

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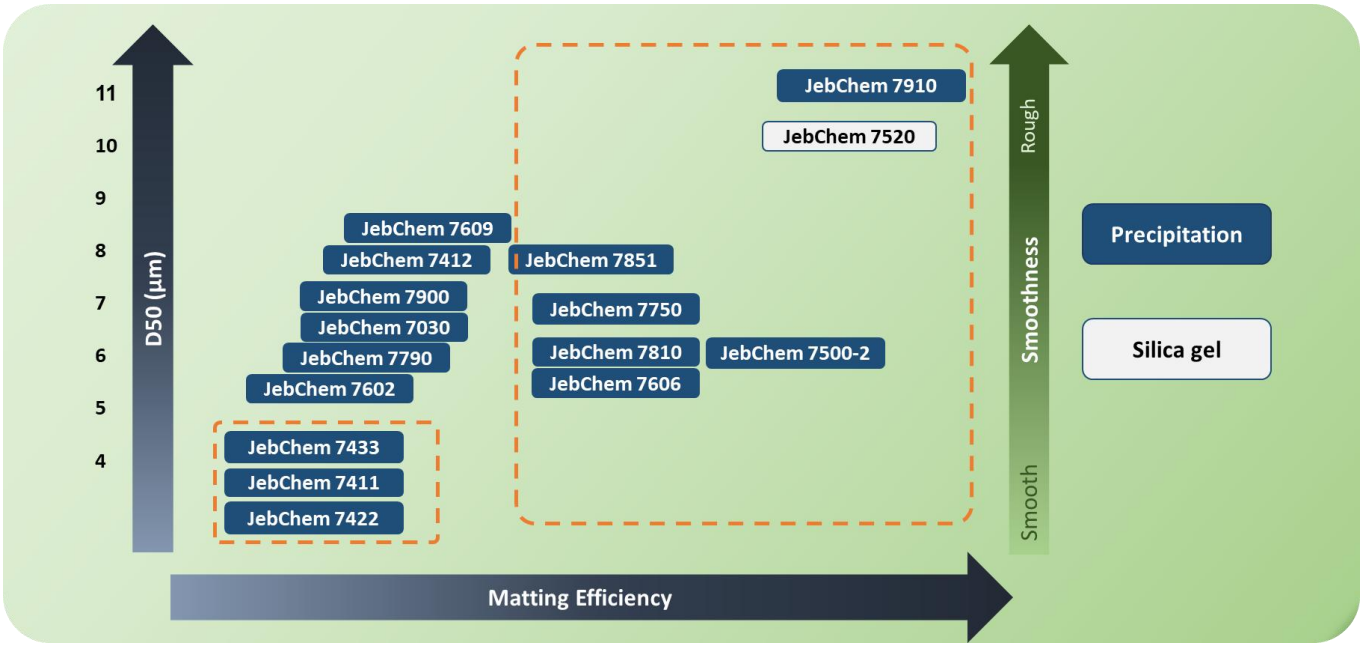
MATTING AGENTS



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