



MATTING AGENTS
FOR COATING & INK INDUSTRIES

# **MATTING AGENTS**

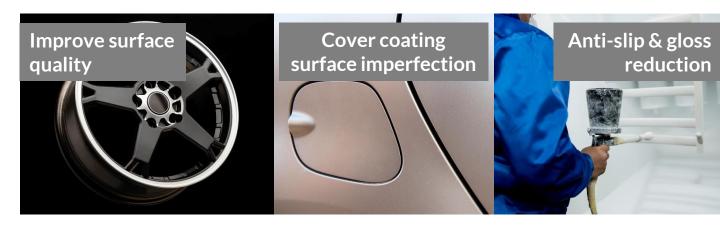
JEBCHEM MATTING AGENTS provide excellent properties for all coatings related technologies, including industrial applications such as coil and wood coatings, printing inks and decorative coatings.

- 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

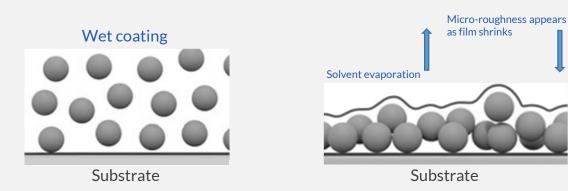


Product Code	Special Features
<b>JebChem 7200</b> (5.8 - 6.3 μm)	JebChem 7200 is a hydrophilic fumed silica with a specific surface area used as rheology and thixotropy control as an anti-settling, thickening, and anti-sagging agent of liquid systems, binders and polymers. Improves free flow and anticaking characteristics of powder
<b>JebChem 7412</b> (7.5 - 8.1 μm)	JebChem 7412 matting agent is a high performance silica developed for a variety of applications in paint & coatings
<b>JebChem 7520</b> (9.0 - 10.0 μm)	JebChem 7520 matting agent is a high performance silica developed for a variety of applications in paints & coatings, wood coatings, coil coatings and metallic coatings
<b>JebChem 7602</b> (5.0 – 6.0 μm)	JebChem 7602 is produced by advanced chemical precipitation process. It is used in paint and printing inks to produce a non-glossy surface together with a smooth touch and high transparency
<b>JebChem 7606</b> (5.2 - 5.7 μm)	JebChem 7606 matting agent is a high performance silica developed for a variety of applications in paints & coatings
<b>JebChem 7607</b> (5.0 - 5.5 μm)	JebChem 7607 matting agent is a fine particle-sized wax-treated precipitated silica. It is suitable for pigmented and non-pigmented systems such as plastic coatings, car OEM coatings, wood coatings and printing Inks
<b>JebChem 7608</b> (5.8 - 6.3 μm)	JebChem 7608's 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
<b>JebChem 7609</b> (8.0 - 8.5 μm)	JebChem 7609 matting agent is a high performance silica developed for a variety of applications such as high-grade furniture coatings, PU/NC/AC wood coatings, industrial coatings and inks
<b>JebChem 7790</b> (5.8 - 6.3 μm)	JebChem 7790's 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
<b>JebChem 7810</b> (4.5 - 5.5 μm)	JebChem 7810 matting agent is an untreated, coarse particle-sized precipitated silica. It is especially recommended for coil coatings, as well as general industrial coatings
<b>JebChem 7900</b> (6.0 - 7.0 μm)	JebChem 7900 matting agent is treated precipitated silica with medium particle size. It is a special purpose matting agent with organic treatment. It offers good transparency and excellent surface finish

## THEORY-MATTING AGENTS

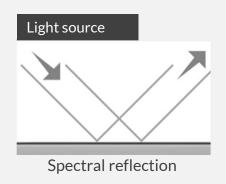


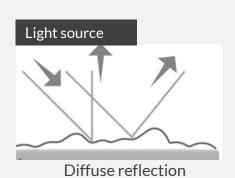
# **MECHANISMS OF MATTING**



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**



# **PRODUCT FAMILY**

Typical Value	Unit	7412	7520	7602	7606	7607	7608	7609	7790	7810	7900
Surface treatment	-	Special	Special	None	Organic	Organic	Organic	Organic	Special	Organic	None
DBP oil absorption following ASTM D281-12	g/100 g	220- 270	220- 270	275- 315	210- 260	240- 280	210- 260	220- 280	220- 270	310- 350	220- 270
Porosity	ml/g	1.8	1.8	1.6	1.8	1.8	1.9	1.7	1.9	1.9	1.8
pH value in 5% dispersion following ISO 787-9	-	3-4	3-4	6-8	6-8	6-8	6-8	6-7	5-8	7-9	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	7.8-8.5	9-10	5-6	5.2-5.7	6-7	5.8-6.3	8-8.5	5.8-6.3	6.5-7.5	6.5-7.5
Whiteness	%	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93	≥ 93
Silica content following ISO 3236-19	%	≥ 99	> 99	> 98	> 99	> 99	> 99	> 99	> 99	> 99	> 99

Aerogel Silica

Precipitated Silica

Universal for both s/b & w/b

Focus on surface treatment type of product

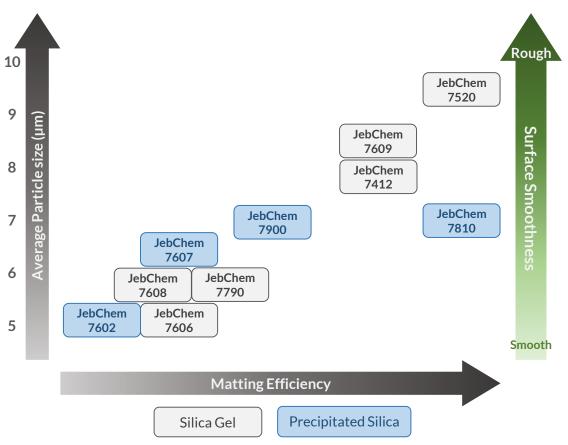
High transparent coating film compared to market

Provides added value and competitiveness



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The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product specification. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. When handling these products, advice and information given in the safety data sheet must be complied with. Further, protective and workplace hygiene measures adequate for handling chemicals must be observed.





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