

DEUREX[®]

THE WAX COMPANY



SYNTHETIC WAXES

DEUREX[®] EWAX
POLYETHYLENE WAXES

NATURAL WAXES

DEUREX[®] XWAX
SUGAR CANE WAXES

HYBRID WAXES

DEUREX[®] HWAX
HYBRID WAXES

AIR CLASSIFICATION PROCESS



FLAKES

e.g. DEUREX E 11 F



GRANULES

e.g. DEUREX E 11 G



FINE GRANULES

e.g. DEUREX A 20 K



POWDERS

e.g. DEUREX A 20 P



FINEST POWDERS

e.g. DEUREX E 09 A



MICRO POWDERS

e.g. DEUREX S 3001 M



LIQUIDS

e.g. DEUREX E 0908 W

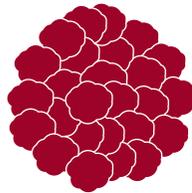
DEUREX AIR CLASSIFICATION PROCESS

- Waxes are classified by air stream
- Wide range of delivery forms from fine granules through powder to micro-sized products
- Wind blows on a tree as metaphor:
 - Branches are not affected (slabs)
 - Twigs fall down (granules and fine granules)
 - Leaves fly through the air (powder)
 - Pollen fly far away (micro-sized products)
- Reasonable, clean and environmentally friendly technology
- All natural and synthetic waxes can be air classified
- Tailor-made particle sizes possible
- Production of hybrid and coated waxes
- Hybrid waxes are homogeneously blended products made of two or even more waxes
- Coated waxes work as carriers for various materials

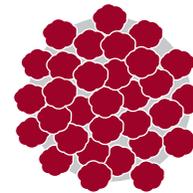


DEUREX COATING PROCESS

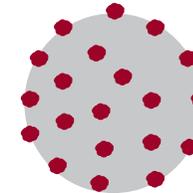
- The warm air classified products are coated with micro-sized and nano-sized additives
- Benefits of waxes and polymers are combined with benefits of additives:
 - **PTFE** for hardness and slip
 - **Silica** for matting and free flow
 - **Diamond** for extreme hardness
 - **Zinc** for matting
 - **Benzoin** for degassing
- Four distinct coating stages
 - Double coated waxes and polymers for dominating coatings properties
 - Fully coated waxes and polymers
 - Spot coated waxes and polymers
 - Eco coated waxes and polymers for dominating wax properties



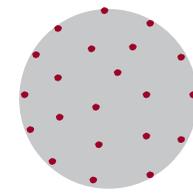
Double coated polymers for dominating coating properties



Fully coated polymers



Spot coated polymers



Eco coated polymers for dominating polymer properties

DEUREX[®] **A WAX**
AMIDE WAXES

DEUREX[®] **E WAX**
POLYETHYLENE WAXES

DEUREX[®] **P T F E**
MICRO-SIZED PTFE

DEUREX[®] **H WAX**
HYBRID WAXES

DEUREX[®] **P WAX**
POLYPROPYLENE WAXES

DEUREX[®] **S i O 2**
MICRO-SIZED SILICA

DEUREX[®] **T WAX**
FISCHER-TROPSCH WAXES

DEUREX[®] **X WAX**
SUGAR CANE WAXES

AIR CLASSIFIED WAXES

DEUREX air classification technology allows various forms of delivery: From fine granules through powder to micro-sized products.

DEUREX air classification is a reasonable, clean and environmentally friendly technology. All natural and synthetic waxes can be air classified, tailor-made particle sizes can be produced.

HYBRID WAXES

Natural hybrid waxes combine benefits of sugar cane waxes with montan waxes and/or carnauba waxes.

Natural-synthetic hybrid wax combine a high acid value and flexibility of sugar cane waxes with high drop point and hardness of PE waxes.

Synthetic hybrid waxes combine various synthetic waxes such as PE waxes and amide waxes.

COATED WAXES

Coated waxes are waxes which work as carrier for various coating materials such as PTFE, Silica or Benzoin. The wax improves the dispersing properties and lifts the coating up to the surface of the powder coatings. From now on, it is possible to get the same results whilst using lower amounts of PTFE, Silica and other coating materials.

SUGAR CANE WAXES

Sugar cane waxes of the DEUREX X-series remain first choice for ecological formulations and products. DEUREX sugar cane waxes are pure natural waxes. During the production process of printing inks, paints and coatings, sugar cane waxes act as lubricants and moreover, they increase the colour output. Additionally, sugar cane waxes improve grip and scratch resistance in the end product. DEUREX sugar cane waxes are the perfect choice for the production of sustainable products.



FLEXO PRINTING

- Packaging
- Food packing
- Flexible packaging



GRAVURE PRINTING

- Illustration
- Publication
- Packaging



OFFSET PRINTING

- Job printing
- Magazines
- Newspapers



SCREEN PRINTING

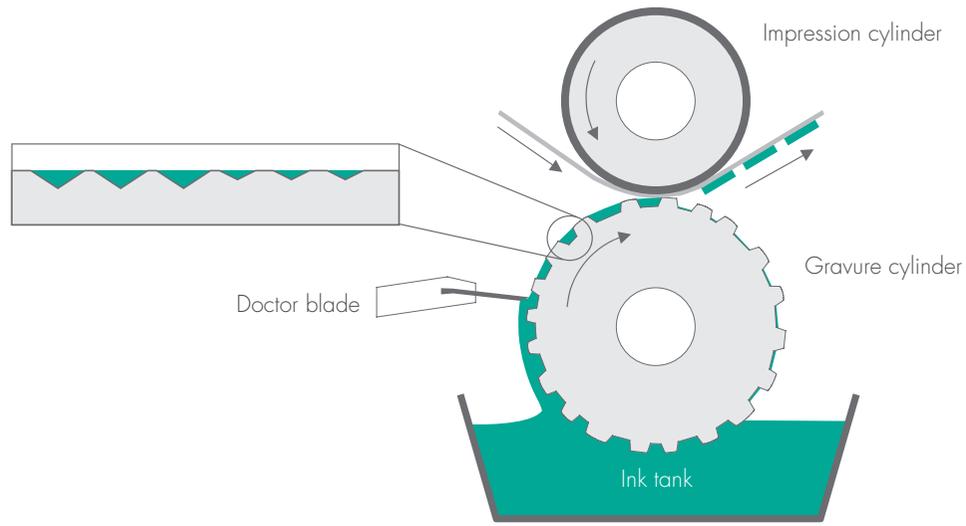
- Textiles
- Flexible surfaces



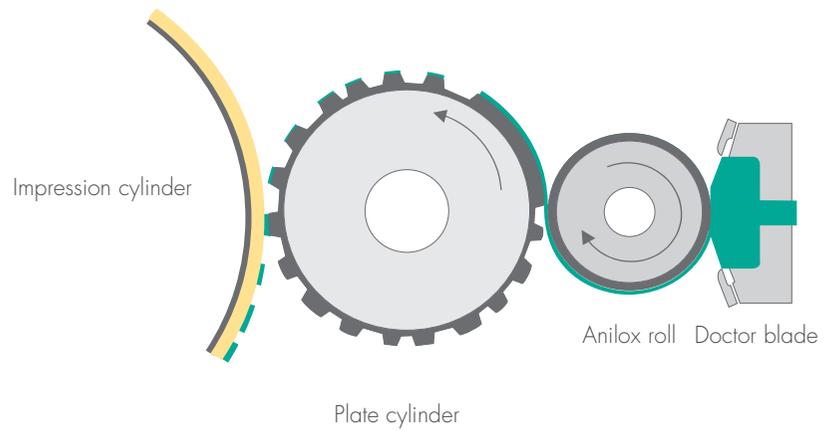
DIGITAL PRINTING

- Small print runs
- Poster

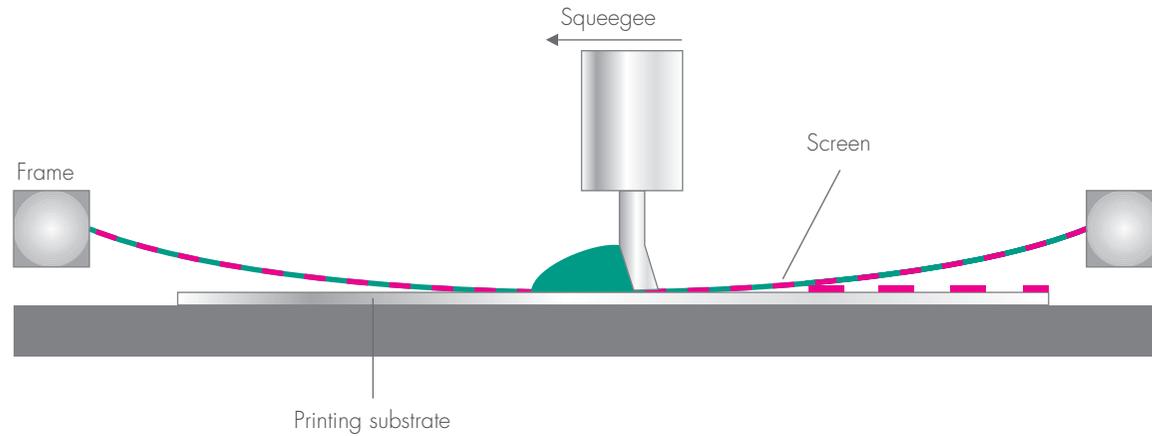
GRAVURE PRINTING



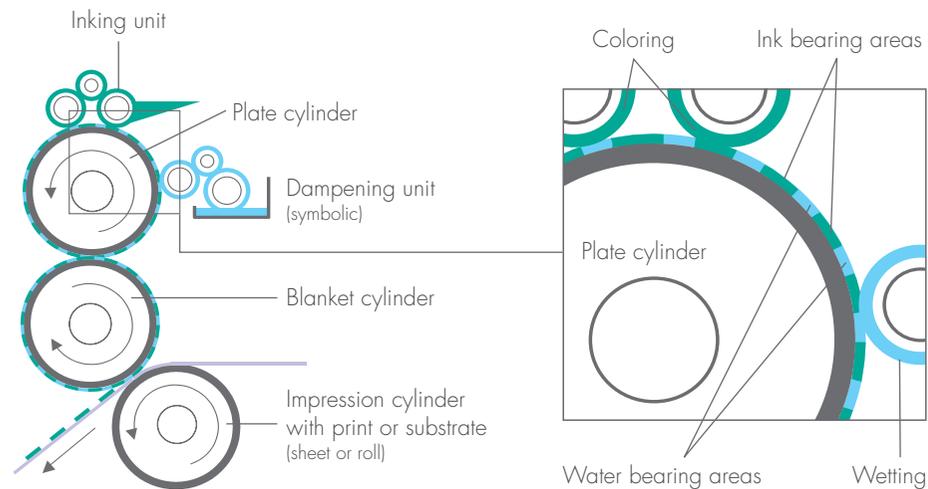
FLEXO PRINTING



SCREEN PRINTING



OFFSET PRINTING



SOLID PRODUCTS	CHEMICAL CHARACTER	DROP POINT °C	DENSITY g/cm ³	PARTICLE SIZE 98 % < x μm	OFFSET PRINTING	GRAVURE PRINTING	FLEXO PRINTING		SCREEN PRINTING		DIGITAL PRINTING	
					Oil-based	Solvent-based	W/B	S/B	W/B	S/B	W/B	S/B
DEUREX A 26 P	Erucamide wax	81 - 89	0.87 - 0.88			xx		xx				x
DEUREX A 27 P	Oleamide wax	70 - 79	0.91 - 0.92			xx		xx				x
DEUREX A 28 P	Stearamide wax	101 - 111	0.90 - 0.91			xx		xx				x
DEUREX C 0118 M	Micro-sized EDTA Na2			18	xx							
DEUREX E 0920 M	Micro-sized polyethylene wax	110 - 120	0.94 - 0.96	20	x	xx	x	xx	x	xx	x	x
DEUREX E 12 K	Polyethylene wax	106 - 114	0.93 - 0.94		x	x	x	x	x	x	x	
DEUREX F 6008 M	Micro-sized PTFE	320 - 340*	2.15 - 2.25	8	x	xx	x	x	x	x	x	
DEUREX F 6314 M	Micro-sized polyolefin wax spot coated with PTFE	110 - 120	0.94 - 0.95	14	x	xx		xx	xx	x		
DEUREX F 6414 M	Micro-sized polyolefin wax eco coated with PTFE	110 - 120	0.94 - 0.95	14	x	xx	x	xx	xx	xx		
DEUREX P 3620 M	Micro-sized polypropylene wax	150 - 170	0.87 - 0.89	20	x	x	x	xx	x	x	x	x
DEUREX S 3219 M	Micro-sized polymer fully coated with Silica	1,600*	0.97 - 0.99	19	xx	x		xx		x		x
DEUREX T 3915 M	Micro-sized Fischer-Tropsch wax	110 - 120	0.94 - 0.95	15	x	xx	xx	xx	x	x	xx	xx
DEUREX T 3920 M	Micro-sized Fischer-Tropsch wax	110 - 120	0.94 - 0.95	20	x	xx	x	xx	x	x	xx	xx
DEUREX X 5217 M	Micro-sized sugar cane wax	78 - 82	< 0.90	17	x	xx	xx	xx	xx	xx	xx	xx

*melting point

SOLID PRODUCTS

SOLID PRODUCTS	ANTI BLOCKING	CHEM. RESIS-TANCE	GLOSS	INDIRECT FOOD CONTACT	MATTING	OVER-PRINTA-BILITY	OVER PRINT VARNISH	PRO-CESSING AGENT	RUB RESIS-TANCE	SCRATCH RESIS-TANCE	SLIP	SOFT FEEL	TEMP. RESIS-TANCE	TRANS-PARENCY	WEATHER RESIS-TANCE	WET ABRASION RESISTANCE	WETTING
DEUREX A 26 P	x			xx		xx	x	x	x	x	xx						x
DEUREX A 27 P	x			xx		x		x			x						x
DEUREX A 28 P	x			xx				x			x						x
DEUREX C 0118 M				xx													
DEUREX E 0920 M		x		xx	xx	x	x	xx	xx	x	xx	x	x	x	x	xx	x
DEUREX E 12 K		x		xx		x	x	xx	xx	x	xx	x	x	x	x	xx	x
DEUREX F 6008 M	xx	xx	x	xx			x		x	xx	xx	x	xx	xx	xx	x	
DEUREX F 6314 M	xx	xx	x	xx			x	xx	x	xx	xx	x	xx	x	xx	x	
DEUREX F 6414 M	xx	xx	x	xx			x	xx	x	xx	xx	x	xx	x	xx	x	
DEUREX P 3620 M	x	x	x	xx		x	x	x	xx	xx	x	xx	xx		x		x
DEUREX S 3219 M	xx	xx		xx	xx	x		x	xx	xx	x	x	x		x	x	
DEUREX T 3915 M		x		x		x	x	x	xx	xx	xx	x	x	x	x	x	x
DEUREX T 3920 M		x		x		x	x	x	xx	xx	xx	x	x	x	x	x	x
DEUREX X 5217 M		x		xx	xx			xx	x		x	xx			xx		x

PRODUCT NOMENCLATURE OF SOLID PRODUCTS

Our product nomenclature is the easiest way to identify our products:

Our system allows you to recognize the chemistry, form of delivery and particle size right away.

- A** Amide wax
- C** Complexing agent
- E** PolyEthylene wax
- F** PTFE
- P** PolyPropylene wax
- S** Silica
- T** Fischer-Tropsch wax
- X** Sugar cane wax

First 2 numbers
Internal product code

Last 2 numbers
Particle size, 98% < x µm

P Powder
K Fine granules

M Micro-sized powder

DEUREX E 0920 M =

PolyEthylene wax

09

98% < 20 µm

Micro-sized powder

LIQUID PRODUCTS	CHEMICAL CHARACTER	DROP POINT °C	SOLID CONTENT %	PARTICLE SIZE 98 % < x µm	OFFSET PRINTING	FLEXO PRINTING	SCREEN PRINTING	DIGITAL PRINTING
					O/B	W/B	W/B	W/B
DEUREX C 0112 O	Oil-based dispersion of EDTA Na ₂		34 - 36	12	xx			
DEUREX E 0908 W	Water-based dispersion of polyethylene wax	110 - 120	44 - 46	8		x	x	x
DEUREX EO 4501 W	Water-based emulsion of oxidized HDPE	125 - 135	34 - 36	1		xx	xx	x
DEUREX F 6001 W	Water-based emulsion of PTFE	320 - 340*	58 - 60	1		x	x	x
DEUREX F 6012 O	Oil-based dispersion of PTFE	320 - 340*	29 - 31	12	xx			
DEUREX F 6408 W	Water-based dispersion of polyolefin wax eco coated with PTFE	110 - 120	44 - 46	8		x	xx	x
DEUREX F 6412 O	Oil-based dispersion of polyolefin wax eco coated with PTFE	110 - 120	33 - 36	12	xx			
DEUREX P 3601 W	Water-based emulsion of polypropylene wax	150 - 170	39 - 41	1		xx	x	x
DEUREX P 3608 W	Water-based dispersion of polypropylene wax	150 - 170	44 - 46	8		xx	x	x
DEUREX T 3908 W	Water-based dispersion of Fischer-Tropsch wax	110 - 120	44 - 46	8		xx	xx	xx
DEUREX T 3912 O	Oil-based dispersion of Fischer-Tropsch wax	110 - 120	34 - 36	12	xx			
DEUREX X 5201 W	Water-based emulsion of sugar cane wax	78 - 82	33 - 36	1		xx	xx	xx

*melting point

LIQUID PRODUCTS



LIQUID PRODUCTS	ANTI BLOCKING	CHEM. RESIS-TANCE	GLOSS	INDIRECT FOOD CONTACT	MATTING	OVER-PRINTA-BILITY	OVER PRINT VARNISH	PRO-CESSING AGENT	RUB RESIS-TANCE	SCRATCH RESIS-TANCE	SLIP	SOFT FEEL	TEMP. RESIS-TANCE	TRANS-PARENCY	WEATHER RESIS-TANCE	WET ABRASION RESISTANCE	WETTING
DEUREX C 0112 O				XX													
DEUREX E 0908 W		X		XX	XX	X	X	XX	XX	X	XX	X	X	X	X	XX	X
DEUREX EO 4501 W	X		X	XX		X	X	XX	X	X	X	X	X		X		XX
DEUREX F 6001 W	XX	XX	X	XX			X		XX	XX	XX	X	XX	XX	XX	XX	
DEUREX F 6012 O	XX	XX	X	XX			X	X	XX	XX	XX	X	XX	X	XX	XX	
DEUREX F 6408 W	XX	XX	X	XX			X	XX	XX	XX	XX	X	XX	X	XX	XX	
DEUREX F 6412 O	XX	XX	X	XX			X	XX	XX	XX	XX	X	XX	X	XX	XX	
DEUREX P 3601 W	X	X	X	XX		X	X	X	XX	XX	X	XX	XX		X		X
DEUREX P 3608 W	X	X	X	XX		X	X	X	XX	XX	X	XX	XX		X		X
DEUREX T 3908 W		X		XX		X	X	X	XX	XX	XX	X	X	X	X	XX	X
DEUREX T 3912 O		X		XX		X	X	X	XX	XX	XX	X	X	X	X	XX	X
DEUREX X 5201 W		X		XX	XX			XX	X		X	XX			X		X

PRODUCT NOMENCLATURE OF LIQUID PRODUCTS

We are in the position to produce tailor-made emulsions and dispersions. Please inform us about your requirements on chemistry, solvents, solid content and other important parameters. We would be pleased to demonstrate our expertise to you and to produce your individual product.

A Amide wax
C Complexing agent
E PolyEthylen wax
EO PolyEthylen wax, Oxidized
F PTFE
P PolyPropylene wax
S Silica
T Fischer-Tropsch wax
X Sugar cane wax

First 2 numbers
Internal product code

Last 2 numbers
Particle size, 98 % < x µm

O Oil-based dispersion
S Solvent-based dispersion
W Water-based dispersion or emulsion

DEUREX E 0908 W =

PolyEthylen wax

09

98 % < 08 µm

Water-based dispersion

All data are based on our current knowledge and inform about our products and their applications. There is no assurance for certain properties and their suitability for certain applications. The customer is responsible to care for the necessary safety measures and to ensure the appropriate handling of the product. Existing industrial property rights have to be considered. An objectionable quality is assured within the scope of our general terms and conditions. DEUREX_ENG_2017_03



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