sasol
reaching new frontiers

inks

Sasol Wax
Wax is all we do. So we do it best.

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***Sasol Wax** is the leading specialist in innovative wax technology.*

at a glance

Paraffin wax is the major raw material for the production of candles and a wide variety of other applications such as rubber & tires, chipboard, food-processing and packaging, pharmaceuticals, cosmetics, inks paints & coatings, textiles as well as in road construction and many more.
For many decades Sasol Wax has focussed on the development of paraffin waxes and specialty wax blends for a lot of different industries. Due to the wide range of our products, we are able to offer solutions suitable for almost all production processes.

Micro and macro crystalline waxes are renown for a broad spectrum of applications. Their use ranges from rather simple applications to process oriented tailor-made products for state of the art production equipment. Specialties are created for innovative solutions.

Refined paraffin waxes are mixtures of saturated hydrocarbon, purified by modern, environmentally friendly technologies.
All our products are constantly monitored by a stringent quality control and are non-toxic. Their environmental properties are characterized by good biodegradability and non-cumulative effects.

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printing inks

Sasol Wax, one of the largest producers of petrochemical and Fischer-Tropsch waxes in the world, produces a number of specialised wax grades in liquid, micronized, flaked and pelletized form for use in the printing ink industry.

Utilisation of the Fischer-Tropsch process together with state of the art fractionation, micronisation and blending facilities enables Sasol Wax to produce superlative products targeted to satisfy the needs of ink makers in every application area as well as intermediate wax grinders, dispersion or compound producers.

Waxes are used as additives in printing inks to:

- **improve the resistance of the ink film to rubbing and scuffing**
- **serve as a slip aid.**

Micronized Powders

Sasol Wax offers a range of micronized waxes. The spherical particles of micronized sprayed powders and the low surface tension of Sasolwax Fischer-Tropsch waxes ensure excellent slip performance in a variety of different types of inks. Our micronized waxes are produced in a variety of particle sizes by the use of the spraying process.

Sasolwax Spray 30 is a medium melting point, economical, fine micronized wax powder with good rub resistance and excellent slip and gloss performance. This product is particularly applicable in lithographic heat set inks due to its low melting point and excellent slip performance. It also performs very well as an additive to water based inks provided high speed mixing equipment is used for dispersion of the wax into the ink.

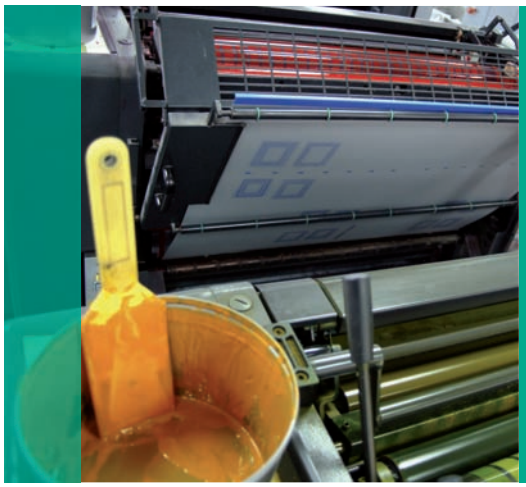
Sasolwax Spray 105 is a high melting, high performance, micronized wax with excellent rub resistance, slip performance and good gloss. It has been developed specifically for applications where high rub resistance is required. This product is resistant to most printing ink solvents and may be used as a high performance additive in most solvent based printing inks. Because of a higher surface tension than Sasolwax Spray 30, this product may be overprinted with most commercial UV varnishes, and is therefore applicable for use in lithographic sheet fed inks.

Sasolwax H1N4 and Spray 40 are micronized powders. These products improve the performance of newspaper inks without impacting significantly on cost.

Sasolwax Aqua 30 is a chemically modified hard wax available in fine powder form. It is designed for improved powder dispersability into water based ink systems. The wax provides good rub resistance, slip and gloss to the final ink.

Microcrystalline waxes are the base materials for heat set ink compounds. With our flexible production technique we are able to design these materials specifically for each customer to provide the best possible results. Each microwax can be compounded with either micronized FT, PE or PTFE to provide the rub resistance needed for your process.

Sasolwax provides good rub resistance slip and gloss to the final ink.



Printing Inks

Application	Product
Lithographic heat set inks	Spray 30, Spray 105, Microwaxes, Petroleum Jellies
Water based liquid inks	Spray 30, Aqua 30
Litographic sheet fed inks	Spray 105
Solvent based liquid inks	Spray 30, Spray 105
Newspaper inks	H1N4, Spray 40

Petroleum Jelly

In the production of printing inks, petroleum jelly serves significant reduction of „Tack", without affecting the viscosity in the process. Petroleum jelly is principally used in all types of printing inks, however the main use is in the field of heat set and offset inks.
For applications in the printing ink industry, we recommend COX GH.

	Colour ASTM	Congealing Point [°C]	Cone Penetration at 25 °C [1/10 mm]	Viscosity at 100 °C [mm^2/s]
CoxTEC 5155	0.5 - 1.0	49 - 57 min	140 - 175	4.0 - 8.0

Sasolwax Fischer-Tropsch Waxes

The base waxes are available in coarse powder, flake and pastille from for use by intermediate grinders and compounders.

Sasolwax H1, a high melting Fischer-Tropsch wax with a molecular weight of 750 g/mol, is available in flaked and pellet form and is mostly used by intermediate companies who do wax grinding. Due to its economical cost performance ratio, this product is ideal for blending with high priced grades such as PTFE.
Processed for use in: Lithographic heat set inks / Water based liquid inks / Wax blend component

Sasolwax C105, a high melting point high performance wax with a molecular weight of 1300 g/mol is available in pellet form. This product, with a narrow carbon distribution, is particularly applicable for use in the production of wax compounds. Its narrow crystallisation curve and lack of low boiling components, leads to very controllable compound production.
Production of compounds for: Lithographic sheet fed ink / Lithographic heat set ink

Sasolwax A28, available in a coarse powder form, is a chemically oxidised hard wax which has been specifically developed for incorporation into water based inks. This product may be easily emulsified. It can be used in water based inks to provide excellent rub resistance, slip and gloss. **Making emulsions for: Water based liquid inks**

Micronized Fischer-Tropsch Waxes

	Congealing Point [°C]	Penetration at 25 °C [1/10 mm]	Particle Size ave/max [µm]
Sasolwax Spray 30	96 - 100	< 1	7/14
Sasolwax Spray 105	102 - 108	< 1	7/14
Sasolwax Aqua 30	> 95	< 1.5	7/14
Sasolwax Spray 40	> 96	< 1	11/30
Sasolwax H1N4	96 - 100	< 1	8/25

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Wax solutions for every process

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