

sasol
reaching new frontiers



chemistry

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



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.





paraffin waxes in the chemistry and blending industry

Sasol Wax products in the chemical industry are utilized as processing aids in manufacturing processes as well as components of finished products and formulations. In some applications waxes are used as inert carriers e.g. for colors, active ingredients, scents etc. They also enhance hydrophobic properties or act as sealing or release agent – depending on the nature of the application. Sasol Wax products can also provide better consistency, enhance film forming capabilities or act as temporary processing aid. Also in the chemical industry paraffin waxes are chemically altered, e.g. chlorinated, oxidized or modified to soaps, esters and many more. In the following just a few of the wide variety of these applications are shown.

Paraffin waxes are part of the formulation of solid emulsion explosives. This kind of explosives usually do not pose any threat regarding transportation, handling or storage: Paraffin wax, being the continuous phase in the emulsion acts as carrier for oil soluble active ingredient. Water as dispersed phase carries the second active ingredient. Perfectly adjusted contact areas of water and oil result in the required effect.

Paraffin wax is also used for coating gun powder and dynamite cartridges to protect them from moisture. Sometimes paraffin waxes are used for the pleghmatization of explosives and pyrotechnics. A lot of paraffin wax is used in pyrotechnical packaging.

Due to the inertness of paraffin wax it is also suitable to protect any film, surface or even chemical substance against oxygen or physical and chemical influences. By spraying small amounts of special wax formulations on the substance one may already achieve efficient protection. Specially designed paraffin wax formulations show migration properties. Those may be used as release agents in various applications as well.

As paraffin wax is insoluble in water based systems small wax particles may be suitable as defoamer. Wax particles become incorporated in the membranes of foam bubbles thus creating predetermined breaking points. Defoaming systems are known e.g. in washing powders adjusting the required amount of foam. Paraffin wax dispersions are also used as defoamers in water born systems, e.g. latex dispersion, to allow excellent film forming in the production of gloves or carpet backings.

Paraffin waxes may offer a wide range of performance in emulsions and dispersions: water repellence, lubricating, sealing and gloss are only a few. However, in many specialized dispersions e.g. for paper, textile, inks, paints, coatings, polish and construction industry, paraffin waxes are only one part of the formulation and are co-emulsified with other active ingredients like polymers, resins, inorganics, colours and others. If the final application may require food contact approvals, e.g. in the packing industry, paraffin waxes are also suitable.

Sasolwax products can provide consistency, enhance film forming capabilities or act as processing aid and carrier.





Explosives and Pyrotechnics

	Congeeing Point [°C]	Oil Content [%]	Penetration at 25°C [1/10 mm]	Viscosity at 100 °C [mm²/s]
Sasolwax 4834	64 - 66	1 max	13 - 17	7 - 9
Sasolwax 5603	56 - 58	0.5 max	15 - 19	
Sasolwax 3971	70 - 75	2 max	25 - 33	12 - 16

Oxygen Barrier

	Congeeing Point [°C]	Oil Content [%]	Penetration at 25°C [1/10 mm]	Viscosity at 100 °C [mm²/s]
Sasolwax 4192	67 - 73		32 - 38	10 - 14
Sasolwax 8202	54 - 57	0.4 max	15 - 19	3.5 - 4.5

Defoamer

	Congeeing Point [°C]	Oil Content [%]	Penetration at 25°C [1/10 mm]	Viscosity at 100 °C [mm²/s]
Sasolwax 4420	43 - 50	10 min		5 - 7
Sasolwax 5103	51 - 53	0.75 max	18 - 20	

Dispersions

	Water Content [%]	Viscosity typical [mPa · s]	pH typical	Emulsifier
HydroWax RV	48 - 52	1000	7.5	Anionic / acid stable
HydroWax 345	50 - 54	800	8.5	Non ionic / anionic
HydroWax CX	52 - 56	400	8.5	Anionic

Emulsion Production

	Congeeing Point [°C]	Oil Content [%]	Penetration at 25°C [1/10 mm]	Viscosity at 100 °C [mm²/s]
Sasolwax 5203	52 - 54	0.5 max	16 - 20	
Sasolwax 5403	54 - 56	0.5 max	16 - 20	
Sasolwax 6403	63 - 66	0.5 max	16 - 20	5.5 - 6.5
Sasolwax 6805	66 - 70	1 max	16 - 20	6 - 8
Sasolwax 4110	60 - 62	0.5 max	13 - 16	4 - 6
Sasolwax 1800	70 - 80	2 max	18 - 22	13 - 17
Sasolwax 6050	59 - 61	2 - 6	55 - 65	5.5 - 6.5
Sasolwax 6189	52 - 54	1 - 3	40 - 60	
Sasolwax 4600	36 - 38			3.5 - 4.5
Sasolwax C80	80 - 85		4 - 9	
Sasolwax H1	96 - 100		< 1	

sasol
reaching new frontiers



Wax solutions for every process



global contacts



www.sasolwax.com

Germany	Sasol Wax GmbH Worthdamm 13 - 27 20457 Hamburg, Germany	Fon: +49 40 78115 0 Fax: +49 40 78115 670	Volker Lichter volker.lichter@de.sasol.com
Europe	Sasol Wax GmbH Worthdamm 13 - 27 20457 Hamburg, Germany	Fon: +49 40 78115 0 Fax: +49 40 78115 670	Diek Tijsseling diek.tijsseling@de.sasol.com
Southern Africa	Sasol Wax (South Africa) PO Box 1 Sasolburg 1947, South Africa	Fon: +27 31 460 3305 Fax: +27 11 522 7345	Sidney Subramony sidney.subramony@sasol.com
Middle East	Alexandria Wax Products Company S.A.E. El Salam Building 19, Kamal Eldeen Salah St. Sumoha-Alexandria, Egypt	Fon: +20 3 420 5210 Fax: +20 3 425 4426	Mohamed Mansour m.mansour@alexandria-wax.com
USA, Canada and Mexico	Sasol Wax North America Corp. 21325-B Cabot Blvd Hayward, CA 94545, USA	Fon: +1 510 783 9295 ext 216 Fax: +1 510 670 8659	Anton Smit anton.smit@us.sasol.com
Latin America	Sasol Wax GmbH Worthdamm 13 - 27 20457 Hamburg, Germany	Fon: +49 40 78115 0 Fax: +49 40 78115 759	Svenja Emmerich svenja.emmerich@de.sasol.com
Asia	Sasol Wax Sdn Bhd. Suite 11.6, Level 11 Menara Great Eastern, 303 Jalan Ampang 50450 Kuala Lumpur, Malaysia	Fon: +60 3 4252 8755 Fax: +60 3 4252 0155	Darryl Tan darryl.tan@ap.sasol.com
Australia	Sasol Wax Australia Pty Ltd Suite 202, 4 -10 Bridge Street Sydney, Australia	Fon: +61 2 9983 9177 Fax: +61 2 9933 9199	Graham Steele graham.steele@ap.sasol.com

This publication/data sheet and the information within were assembled and checked with utmost care and are to be regarded as accurate as of the date of issue. Nevertheless, Sasol Wax GmbH takes no responsibility or warrant for its timeliness, completeness, quality or correctness. This publication/data sheet is for information only and does not warrant any particular product properties. It is the user's obligation to check the products and use them safely as well as to comply with all applicable laws and regulations. Sasol Wax GmbH shall not be responsible for any damage or injury in particular resulting from use, other than the stated use of the material, from any failure to abide to recommendations, or from any dangers inherent in the nature of the material. It is recommended to contact the manufacturer for further information, especially if it is intended to use the product for applications other than the stated. In addition, the most recent version of our General Business Conditions will apply. Sasolwax is a registered trademark of Sasol Ltd.