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Fischer-Tropsch Hard Waxes

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.*

An introduction to Sasolwax Fischer-Tropsch Hard Waxes

Sasol Wax produces superlative, high quality, competitive wax products targeted at the needs of a variety of industries and application areas. Sasolwax is the trade name for Sasol Wax's paraffin- , microcrystalline- and of a unique range of waxes produced by Sasol Wax´s Fischer-Tropsch process.
Sasolwax Fischer-Tropsch hard waxes are synthetically produced in a controlled manner from carbon monoxide and hydrogen as feed. This results in their consistently high quality.

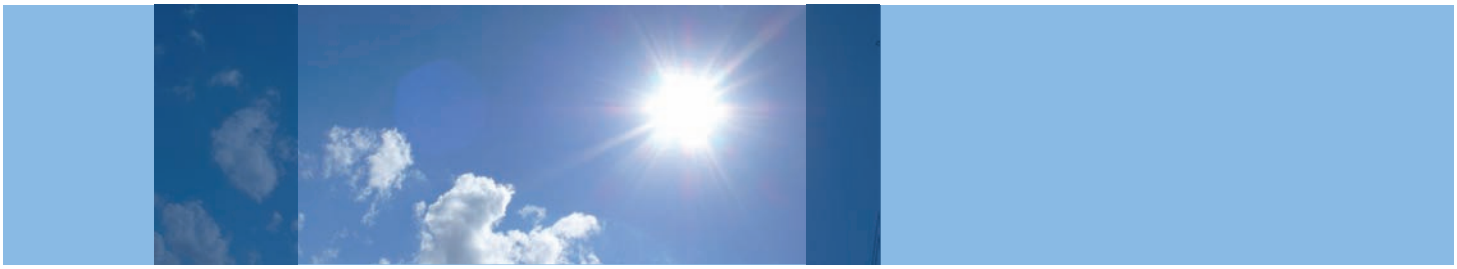
Sasolwax Fischer-Tropsch hard waxes consist mainly of saturated, straight chain hydrocarbons. This linear structure is responsible for their many desirable properties. The combination of a high melting point, low viscosity and excellent hardness, even at elevated temperatures, provides superior performance in a variety of applications. Sasolwax Fischer-Tropsch hard waxes are inherently stable and may be exposed to heat for long periods with little deterioration in their properties.

State of the art fractionation, micronisation and modification render a wide range of Fischer-Tropsch hard waxes with different physical and chemical characteristics. Chemical modification yields products with unique characteristics.
At the forefront of wax technology our wax research teams have developed a number of grades of Sasolwax Fischer-Tropsch hard waxes to meet the specific needs of our customers. Various grades comply to the USA Food and Drug Administration and the German BfR for contact with foodstuffs.

Some of the applications for Sasolwax Fischer-Tropsch hard waxes include the following:

- **Hot Melt Adhesives**
- **Printing Inks, Paints and Varnishes**
- **Polymer Processing**
- **Polishes**
- **Textiles**

Sasol Wax GmbH, with its reputation for reliability, is an accredited **ISO 9001, ISO 14001 and OHSAS 18001** supplier.



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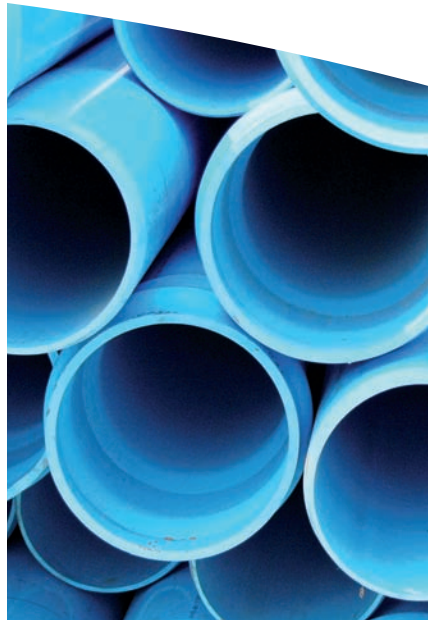

Unmodified Waxes	Sasolwax Grades	Congealing Point [°C]	Mettler Drop Point typical [°C]	Penetration at 25 °C [1/10 mm]	Colour	Acid Value [mg KOH/g]	Saponification Value [mg KOH/g]	Density at 25 °C [g/cm³]	Molecular Weight typical [Dalton]	Supply Form	Particle Size d50/d90 [µm]	Application Areas				
												HMA	PVC	IPC	POL	TXT
Standard	H1	96 - 100	112	<1	White			0.94	880	Flakes / Pellets		•	•	•	•	•
	H1N6	96 - 100	98	<1	White			0.94	880	Coarse Powder	800 / 1180		•			
High Melting	C105	102 - 108	117	<1	White			0.95	1110	Pellets				•		
	H105	102 - 108	117	<1	White			0.95	1110	Flakes		•				
Medium Melting	C80	80 - 85	88	4-9	White			0.92	620	Pellets		•			•	
Micronized Waxes																
Extra Fine	Spray 30	96 - 100	112	<1	White			0.94	880	Sprayed Powder	7 / 14		•	•		
	Spray 105	102 - 108	117	<1	White			0.95	1110	Sprayed Powder	7 / 14			•		
	Aqua 30S	>95		<1.5	White	3 - 7	11 - 17	0.94	1110	Sprayed Powder	7 / 14			•		
Fine	Spray 40	>96	112	<1	White			0.94	880	Sprayed Powder	11 / 30			•		
	H1N4	96 - 100	112	<1	White			0.94	880	Sprayed Powder	8 / 25			•		
Modified Waxes																
Oxidized	A1		102	4 - 8	Off white	27 - 29	50 - 60	0.95	670	Coarse Powder	2000*		•		•	•
	A28		105	<4	Off white	27 - 29	50 - 80	0.95	900	Coarse Powder	2000*		•		•	•
Saponified	A2		107	<4	Pale yellow	9 - 13	24 typ.	0.96	670	Coarse Powder	2000*				•	•
	AP5		109	<2	Pale yellow	10 - 14	25 - 40	0.96	1030	Coarse Powder	2000*				•	•
	A859	>95		<1.5	Off white	3 - 7	11 - 17	0.94	1030	Coarse Powder	2000*			•	•	•

* maximum Particle Size

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The combination of a high melting point, low viscosity and excellent hardness, even at elevated temperatures, provides superior performance in a variety of applications.

Hot Melt Adhesives

Sasolwax Fischer-Tropsch hard waxes are excellent waxes for all HMA formulations. Their high crystallinity and low viscosity make them the perfect choice to reduce the viscosity, control the open and set times, improve heat stability, flexibility and elongation properties of the HMA.

Printing Inks, Paints and Varnishes

Waxes are used as additives in printing inks primarily to improve the resistance of the ink film to rubbing and scuffing and to serve as a slip aid.
Sasolwax Fischer-Tropsch hard waxes are an attractive alternative to polyethylene waxes in solvent and water based printing inks.

Polymer Processing

Sasolwax Fischer-Tropsch hard waxes are excellent external lubricants for use during PVC processing due to their linear structure and their low viscosity. These properties lead to increased fusion time, reduced fusion torque and increased stability time.
Sasolwax Fischer-Tropsch hard waxes are also used extensively in injection moulding, rubber extrusion and expanded polystyrene.

Textiles

Using improved manufacturing technology, Sasol Wax has upgraded its range of oxidised Sasolwax Fischer-Tropsch hard waxes. These grades have been specifically developed to enhance process stability, from easier emulsification and application through to final fabric performance in areas such as sewability, knitability, flex abrasion resistance and tear strength.

Polishes

Polish producers use waxes to fulfil the basic function of polishes, i.e. protection, beautification and cleaning. Sasolwax Fischer-Tropsch hard waxes find applications in a range of polishes that include the traditional solvent and emulsion pastes as well as liquid emulsion polishes.

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