



construction





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.



construction

Paraffin waxes and formulations thereof are used in the construction industry as auxiliaries and offer a vast array of advantages.

Sasolwax is our brandname for waxes and wax blends, either supplied in liquid form in a tanktruck at about 80 °C, or supplied as slabs in a carton or pastilles in sacks.

HydroWax is our brandname for our water based emulsions, supplied also in tanktrucks, IBC or drums. HydroWax is liquid at ambient temperature.

HydroWax 46, 638 and 730 for concrete curing formulations have been developed to form excellent evaporation barrier. As water based formulations HydroWax do not emit organic solvents to the environment. With several available emulsifier systems they are designed for different curing formulations and highest efficiency on wax emulsion technology.

HydroWax 88, based on high viscosity hydrocarbon oils, is known as the benchmark for effective dust binding in European mineral fibre production. Recently HydroWax 85 also has been developed to give excellent dust binding properties and is based on wax-oil blends. With a solid content of about 50% both formulations provide highest efficiency on emulsion related technology:

Carefully adjusted particle sizes of typically 1 micron in average provide excellent wettability and adhesion. Active ingredients with a flash point of about 300 °C and practically no short chain hydrocarbons give a surplus of safety e.g. preventing fires in the curing sector.

Hydrowax 87 was developed as an alternative to the hydro carbon based dust binding agents. This emulsion is based on natural and renewable sources.

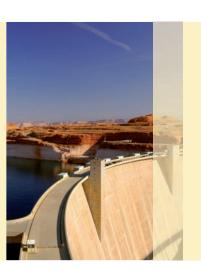
In ceramic as well as refractory industry Sasolwax formulation provide green strength, lubricating effect and act as sintering aid. Due to its low viscosity Sasolwax can be evenly distributed in the uncured ceramic mass. In curing process the highly pure paraffin particles provide defined small pores thus reducing internal stress in the ceramic body.

In the manufacturing of tarpaulins paraffin waxes function as lubricating as well as sealing agents. In production of water resistant plaster board wax dispersions are typical additives used to reduce water uptake significantly. Some special applications for waxes are binding agents in subgrade and horsetracks. Here waxes increase flexibility, reduce dust development and increase the compatibility of different components.

The addition of paraffin waxes or wax emulsion offer a vast array of advantages e.g. water repellence, sealing, realising, lubricating and dust binding.









HydroWax in Concrete Curing

| | Water Content [%] | Viscosity typical [mPa•s] | pH typical | Emulsifier | Basis |
|--------------|----------------------|---------------------------------|---------------|--------------------|-------|
| HydroWax 46 | 38 - 42 | 200 | 7 | Cationic | |
| HydroWax 730 | 38 - 42 | 400 | 9.5 | Anionic/non ionic | |
| HydroWax 638 | 38 - 42 | 300 | 6 | Cationic/non ionic | |

HydroWax in Mineral Fibre

| | Water Content [%] | Viscosity typical [mPa•s] | pH typical | Emulsifier | Basis |
|-------------|----------------------|---------------------------------|---------------|---------------------|-----------------|
| HydroWax 88 | 45 - 49 | 1000 | 7 | Anionic/acid stable | Hydrocarbon oil |
| HydroWax 87 | 46 - 50 | 1100 | 7 | Anionic/acid stable | Natural oil |
| HydroWax 85 | 46 - 50 | 1100 | 7 | Anionic/acid stable | Waxy oil blend |

Sasolwax in Ceramic and Refractory Industry

| | Congealing Point [°C] | Oil Content [%] | Penetration at 25 °C [1/10 mm] | Viscosity at 100 °C [mm²/s] |
|---------------|-----------------------------|--------------------|--------------------------------------|-----------------------------------|
| Sasolwax 5205 | 52 - 54 | max. 0.5 | 21 - 25 | 3 - 5 |
| Sasolwax 5405 | 53 - 55 | max. 0.5 | 20 - 25 | |
| Sasolwax 1368 | 60 - 65 | | 13 - 19 | 6 - 9 |

Some Ceramic producers also prefer water based emulsions to be incorporated into the ceramic mass:

| | Water Content [%] | Viscosity typical [mPa•s] | pH typical | Emulsifier |
|--------------|----------------------|---------------------------------|---------------|-------------------|
| HydroWax CX* | 52 - 56 | 400 | 8.5 | Anionic |
| HydroWax R | 52 - 56 | 200 | 8.5 | Anionic |
| HydroWax 345 | 50 - 54 | 800 | 8.5 | Non ionic/anionic |

^{*} complies with following regulations: XXXVI recommendation of BFR, FDA 21 CFR 176.180, FDA 21 CFR 175.105

Sasolwax in Production of Tarpaulins

For the manufacture of tarps the higher viscosity formulations Sasolwax 1308 and 1307 are preferred to provide lubricating of filaments as well as sealing at their crossing sections.

| | Congealing Point [°C] | Oil Content [%] | Penetration at 25 °C [1/10 mm] | Viscosity at 100 °C [mm²/s] |
|---------------|-----------------------------|--------------------|--------------------------------------|-----------------------------------|
| Sasolwax 1308 | 64 - 67 | | 12 - 16 | 320 - 380 |
| Sasolwax 1307 | 65 - 67 | 0 - 1 | 11 - 14 | 280 - 320 |





Wax solutions for every process



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