



NOWAX™
vegetable based
waxes

experience performance in the way
our vegetable based coatings deliver
sustainable functionality to your paper
based packaging solutions



INGREDIENTS: CHERRY, SODIUM CITRATE,
GLAZE, CARNAUBA, CORN SYRUP, MODIFIED

waxes | adhesives | dispersions

 **paramelt**

experience. performance.

NOWAX™

nature's own solution

NOWAX™: vegetable based coating waxes

Paraflex NOWAX™ vegetable based waxes offer a sustainable answer to a host of today's packaging challenges with a positive consumer image. These coating waxes provide paper based packaging with the needed functionality like controllable barrier properties, high gloss levels, excellent release characteristics and bring additional machineability benefits like low coefficient of friction, good scuff resistance and heat sealability. They can be run on existing wax coating equipment and can meet all renewability and 'end of life' requirements.

Renewable sources - responsibly grown

- responsibly managed forests (certified fiber sources)
- waxes are based on sustainably produced vegetable oils
- vegetable oils used for the Paraflex Nowax range meet the criteria of the RSPO and WWF and are GMO-free
- up to 99% bio based

Functionality

Compared with traditional paraffin based wax coatings vegetable based solutions offer a number of advantages in the delivered functionality

Property	Vegetable wax	Paraffin wax	Remark
Machineability: packaging	++	+	No static build up and excellent low CoF
Machineability: coating		=	The coating characteristics of both product types are comparable
Gloss	++	+	Vegetable wax can provide an even higher gloss level
Release	++	+	The release to the packed food e.g. sticky sweets can be even better with vegetable waxes
CoF (Coefficient of Friction)	++	+	
Scuff resistance	++	+	
MVTR	+	++	In comparable coat weights vegetable waxes show a slightly higher MVTR enabling the material to breathe (e.g. an advantage for maturation of soft cheese)
Fat resistance		=	
Odour		=	Vegetable waxes have a characteristic odour different from paraffin wax
Physical properties		=	
Biodegradability/ compostability	++	+	Vegetable waxes offer slightly better compostability and biodegradability performance

End of life options

- compostable - suitable packaging constructions allow certification to EN 13432
- inherently biodegradable - minimises littering impact
- repulpable - through appropriate processes
- contributes high calorific value - for incineration

'People Prefer Paper'

Consumer surveys in Europe confirm that paper packaging has a very powerful appeal for consumers. An IPSOS study commissioned by PaperImpact highlighted that

- 93% prefer paper for its positive environmental perception
- 87% prefer paper for convenience factors (easy opening, controlled tear)
- 80% prefer the feel of paper based packaging

For waxed paper

- confectionery (twist/fold/wrap/seal)
- cheese retail PoS (point of sale) wrap
- meat PoS wrap
- fastfood PoS wrap
- bread bags / bread seal wrap



For waxed (corrugated) board

- fruit and vegetables
- frozen fish



Processing & products

Paraflex NOWAX™ vegetable waxes can be applied on e.g. paper by a standard roller coating process. Typical application weights for one sided coatings are 4 - 10 g/m² and for two sided coatings 8 - 12 g/m².

Product name	Viscosity in mPa.s	Application temperature in °C	Product description and typical application areas in brief
Paraflex NOWAX CW 6103	41 - 57 @ 100°C	100 - 130	Formulated vegetable wax for high gloss, excellent release and CoF with typical use is in twist, wrap and fold applications
Paraflex NOWAX CW 6065	45 - 65 @ 120°C	100 - 130	Formulated vegetable wax specifically designed for dark coloured substrates requiring stable optical performance
Paraflex NOWAX CW 6089	15 - 25 @ 100°C	90 - 110	Formulated vegetable wax specifically designed for use in twist, wrap and fold applications requiring high and consistent gloss levels.
Paraflex NOWAX CW 6096	5 - 15 @ 100°C	90 - 110	Formulated as paraffin replacement for food wrapping papers & cardboard packaging applications
Paraflex NOWAX CW 6097	20 - 28 @ 100°C	100 - 130	Formulated to give good flexibility, abrasion, fat and grease resistance on open papers for example in applications such as burger and sandwich wrap
Paraflex NOWAX CW 6101	20 - 28 @ 100°C	100 - 130	Formulated vegetable wax for packaging paper and maturation of soft cheese
Paraflex NOWAX CW 9	7 - 11 @ 100°C	100 - 130	Basic vegetable wax for 2-side coating of paper
Paraflex NOWAX CW 65	90 - 100 @ 100°C	100 - 130	Formulated vegetable wax for packaging paper and maturation of soft cheese
Paraflex NOWAX WS 6102	240 - 340 @ 130°C	120 - 140	Formulated heat sealable vegetable wax (wax seal) for high gloss, excellent release and CoF with typical use is in twist, wrap and fold applications
Paraflex NOWAX WS 6098	550 @ 100°C	120 - 140	Formulated heat sealable vegetable wax (wax seal) for high gloss, excellent release and CoF
Paraflex NOWAX HS 9791	1900 - 2700 @ 130°C	130 - 150	Formulated Heat Sealable wax with high seal strength for application on various materials like paper, films and foil and Over Print Varnishes.
Paraflex NOWAX HS 9788	~3400 @ 100°C	130 - 150	Formulated Heat Sealable wax with high seal strength for application on various materials like paper, films and foil and Over Print Varnishes.
Paraflex NOWAX L 201	165 - 215 @ 130°C	100 - 130	Vegetable based laminating wax for combinations of paper, film and aluminium foil
Paraflex NOWAX L 401	270 - 340 @ 130°C	100 - 130	Vegetable based laminating wax for combinations of paper, film and aluminium foil when higher bond strength is required



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