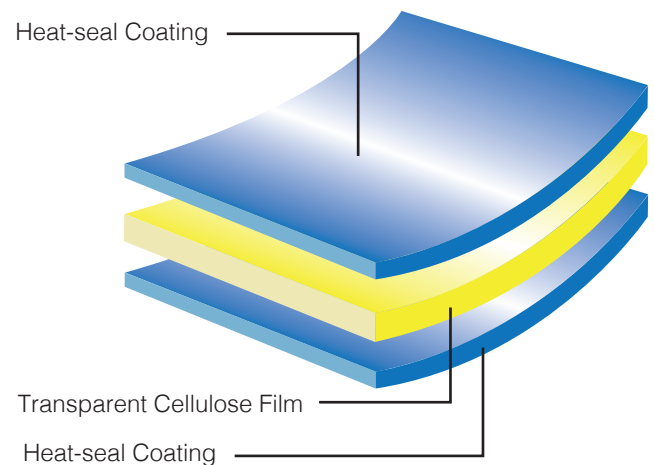


NatureFlex™ NVS

Data

Features - Transparent Heat-sealable Compostable Film

- Based on renewable resources
- Certified as compostable in both industrial and home composting environments, also suitable for anaerobic digestion
- Semi-permeable to moisture, providing good anti-mist properties
- Heat-sealable on both sides
- Formulated for print and conversion receptivity
- Excellent transparency and gloss
- Excellent dead-fold characteristics
- Inherent anti-static properties
- Controlled slip characteristics
- Excellent barrier to gases and aromas
- Resistant to oils and greases
- Cold-seal compatible



Applications - Packaging and Labels

NVS film has been specifically formulated to offer improved stiffness under chill cabinet conditions and a controlled level of moisture permeability with a heat-sealable conversion-friendly coating on both sides. Target applications include the flow packing of fresh produce, window bags and bakery. NVS is ideal for use in applications where the complete package construction needs to be certified as compostable, such as, sandwich packs or flow packs. It has excellent clarity for a 'no-label' look and is suitable for fruit labelling.

Technical Properties (Typical Values)

Property	Test Basis	Test Conditions	Units	NVS		
				23μ	30μ	45μ
Thickness	Futamura Test		Micron	23.3	29.9	45
Yield	Futamura Test		m ² /kg g/m ²	29.9 33.5	23.3 43.0	15.5 64.5
Permeability to: Water vapour	ASTM E96	25°C 75% RH 38°C 90% RH	g/m ² .24 hrs	200 600		
Oxygen	ASTM F 1927	23°C 0% RH 23°C 50% RH	cc/m ² .24 hrs	1.0 5.0		
Gloss	ASTM D 2457	45°	units	110		
Haze (wide angle)	ASTM D 1003	2.5°	%	4		
Coefficient of friction (film to film)	ASTM D 1894	Static Dynamic		0.3 0.3		
Tensile strength	ASTM D 882		MN/m ² MD TD	125 70		
Elongation at break	ASTM D 882		% MD TD	22 70		
Elasticity modulus (1% secant)	ASTM D 882		MN/m ² MD TD	≥1200 ≥600		
Sealing range	Futamura Test	0.5 secs 69 kN/m ²	°C	90-200		
Seal strength	Futamura Test	135°C; 0.5 secs; 69 kN/m ²	g(f)/25mm	200		

All properties are tested under standard laboratory conditions: 23±2°C; 50±5% RH, unless otherwise stated.
Where relevant, tests are based on international testing standards.
MD - Machine Direction TD - Transverse Direction

NatureFlex™ NVS

Data

Environmental Data

Measure	Typical Value/ Suitability for use	Validation or Test Method
Biobased carbon content (¹⁴ C)	96%	ASTM D6866
Biomass content (total)	89%	Futamura calculation
Carbon footprint kgCO ₂ eq/kg (incl.biogenic)	4.9	Peer reviewed LCA 2019 GaBi software Impact 2002+ (Global warming 500yr - midpoint)
Industrial compostability	Certified	EN13432, EN14995, AS4736, ASTM D6400 and ISO 17088
Home compostability	Certified	OK Compost Home, AS 5810
Anaerobic digestion	Approved	ISO 15985



NatureFlex films are suitable for a range of Organic Recycling methods, as detailed above, and for incineration with energy recovery. However they are not designed for mechanical recycling methods. Please check for availability of FSC™ certified film.

Reel Specifications

Nominal Reel Diameters

Film	Length/(metres)			
	1600	3200	6400	9600
23µ	1600	3200	6400	9600
30µ	1250	2500	5000	7500
45µ	850	1700	3400	5100
Outside diameter for 77mm core	240mm	330mm	450mm	ns
Outside diameter for 153mm core	ns	355mm	475mm	570mm

Other reel lengths are available subject to negotiation.

ns = non-standard.

Food Contact

NatureFlex NVS is formulated to comply with EU legislation for many room temperature food contact applications. Customers intending to use the film in a food contact application must request the Declaration of Compliance which gives full details. For information on other countries please contact your Futamura Sales Office.

Film Storage

To maintain the high quality of this product during storage it is recommended that NatureFlex NVS should be stored in its original wrapping away from any source of local heating or direct sunlight.

Recommended conditions of storage are:

Temperature: 17-23°C

Relative Humidity: 35-55%

NatureFlex NVS is suitable for use for 6 months from the date of delivery and stocks should be used in rotation.

Films should be allowed to reach operating room temperatures for 24 hours before use.

Health and Safety Guidelines

For Health and Safety information, please refer to literature reference N190.



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