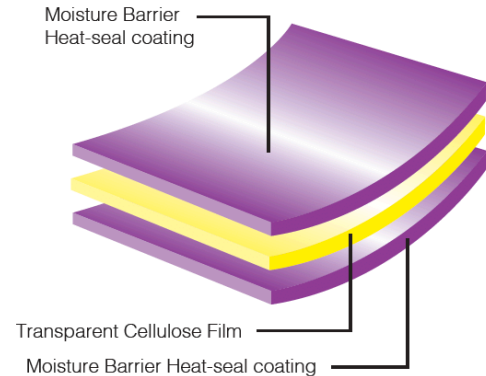


# NATUREFLEX™ NK-F

## FEATURES – TRANSPARENT HIGH BARRIER HEAT-SEALABLE COMPOSTABLE FILM

- Based on renewable resources
- Certified as compostable in both industrial and home composting environments, also suitable for anaerobic digestion
- Excellent moisture barrier
- Heat-sealable on both sides
- Formulated for enhanced 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

The incorporation of a minimal amount of PVdC to optimize moisture and gas barrier functionality allows for simpler and lighter packaging to extend and maintain shelf life of the packaged products. The film maintains good conversion receptivity as well as heat-sealability on both sides. Target applications include twist-wrap, VFFS, overwrap, flow-wrap and lamination for moisture sensitive products.

## TECHNICAL PROPERTIES (TYPICAL VALUES)

PROPERTY	TEST BASIS	TEST CONDITIONS	UNITS	NK-F			
				75	90	120	180
THICKNESS	Transcendia test	-	mil	0.76	0.92	1.18	1.77
YIELD	Transcendia test	-	in <sup>2</sup> /lb	25100	21000	16400	10900
PERMEABILITY TO:	WATER VAPOR	ASTM E96	100°F 90% RH	g/100in <sup>2</sup> .24 hrs	1.29		
					0.2		
	OXYGEN	ASTM F 1927	73°F 0% RH	cc/100in <sup>2</sup> .24 hrs	0.32		
		73°F 50% RH	105				
OPTICAL:	GLOSS	ASTM D 2457	45°	units	105		
	HAZE (WIDE ANGLE)	ASTM D 1003	2.5°	%	5.5		
COEFFICIENT OF FRICTION (FILM TO FILM)	ASTM D 1894	Static	-	0.35			
		Dynamic	-	0.30			
TENSILE STRENGTH	ASTM D 882	-	kpsi	MD	18		
				TD	10		
ELONGATION AT BREAK	ASTM D 882	-	%	MD	22		
				TD	70		
ELASTICITY MODULUS (1% SECANT)	ASTM D 882	-	kpsi	MD	≥170		
				TD	≥85		
SEALING RANGE	Transcendia test	0.5 secs; 10 psi	°F	240-340			
SEAL STRENGTH	Transcendia test	275°F; 0.5 secs; 10 psi	g(f)/in	225			

All information, recommendations and suggestions contained herein, including, without limitations, stated values (collectively the "Information") shall be used only as a guide by Purchaser and not for specification or any other purpose. The Information does not constitute a warranty nor guaranty of any type whatsoever. Purchaser should independently determine the suitability of all material purchased and must confirm adaptability and other characteristics by conducting its own test. Transcendia shall have no liability as a result of any loss, expense, damage, cost or other injury which results from Purchaser's reliance on the Information.

## ENVIRONMENTAL DATA

MEASURE	TYPICAL VALUE/ SUITABILITY FOR USE	VALIDATION OR TEST METHOD
Biobased carbon content ( <sup>14</sup> C)	90%	ASTM D6866
Biomass content (total)	90%	Transcendia calculation
Carbon footprint (GHG) kgCO <sub>2</sub> eq/kg (incl.biogenic)	5.05	Peer reviewed LCA 2010 GaBi software
Industrial compostability	Certified	EN13432, EN14995, ASTM D6400 and ISO 17088
Home compostability	Certified	OK compost home
Anaerobic digestion	Approved	ISO 15985
Marine biodegradation	Approved	ASTM D6691-09

NatureFlex™ NK-F 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 thermal (melt) recycling methods. Please check for availability of FSC™ Certified Film.

## FOOD CONTACT

NatureFlex™ NK-F is formulated to comply with US 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 Transcendia Sales Office.

## HEALTH AND SAFETY GUIDELINES

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

## FILM STORAGE

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

Recommended conditions of storage are:

Temperature: 60-75°F

Relative Humidity: 35-55%

NatureFlex™ NK-F is suitable for use for 6 months from the date of delivery and stocks should be used in rotation. Film should be allowed to reach operating room temperatures for 24 hours before use.



The mark of responsible forestry



**COMPOSTABLE**  
IN INDUSTRIAL FACILITIES

Check locally, as these do not exist in many communities. CERT # 890980



Compostable  
7H0037

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