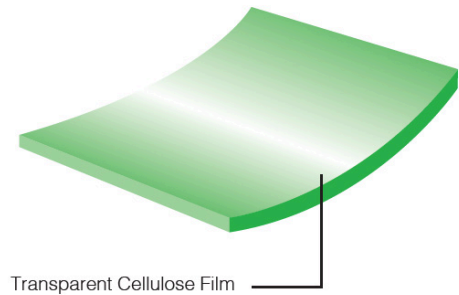


# NATUREFLEX™ NP-F

## FEATURES – TRANSPARENT NON HEAT-SEALABLE COMPOSTABLE FILMS

- Based on renewable resources
- Certified as compostable in both industrial and home composting environments, also suitable for anaerobic digestion
- Excellent transparency and gloss
- Both sides of the film are equally receptive to inks and adhesives
- Highly permeable to water vapor with excellent barrier to gases and aromas
- Inherent anti-static properties
- Excellent dead-fold characteristics



## APPLICATIONS

NP-F films can be used for twistwrap, glued bags and lamination, for products where protection from moisture is not required.

## TECHNICAL PROPERTIES (TYPICAL VALUES)

PROPERTY	TEST BASIS	TEST CONDITIONS	UNITS	NP-F						
				80	90	95	110	125	140	165
THICKNESS	Transcendia test	-	mil	0.82	0.89	0.96	1.09	1.23	1.37	1.64
YIELD	Transcendia test	-	in <sup>2</sup> /lb	23400	21650	20100	17600	15600	14050	11750
PERMEABILITY TO:	WATER VAPOR	ASTM E96	100°F 90% RH	g/100in <sup>2</sup> .24 hrs	Not applicable					
	OXYGEN	ASTM F 1927	73°F 50% RH	cc/100in <sup>2</sup> .24 hrs	0.65					
OPTICAL:	GLOSS	ASTM D 2457	45°	units	95					
	HAZE (WIDE ANGLE)	ASTM D 1003	2.5°	%	3					
COEFFICIENT OF FRICTION (FILM TO FILM)	ASTM D 1894	Static	-	0.50						
		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					

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)	98%	ASTM D6866
Biomass content (total)	95%	Transcendia calculation
Carbon footprint (GHG) kgCO <sub>2</sub> eq/kg (incl.biogenic)	3.3	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™ NP-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 FSCTM certified film.

## FOOD CONTACT

NatureFlex™ NP-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™ NP-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™ NP-F 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.

