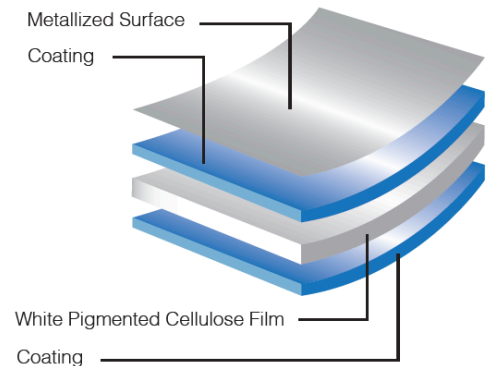


NATUREFLEX™ NM-F WHITE

FEATURES – HIGH PERFORMANCE WHITE METALLIZED COMPOSTABLE FILM

- Based on renewable resources
- Certified as compostable in both industrial and home composting environments, also suitable for anaerobic digestion
- Excellent dead-fold properties
- Highly receptive surfaces for ease of conversion
- Ultra high lustre and sparkle
- Excellent barrier to UV/visible light transmission
- Heat-sealable on non-metallized surface
- Excellent moisture barrier
- Inherent anti-static properties
- Controlled slip characteristics
- Excellent barrier to gases and aromas
- Resistant to oils and greases
- Cold-seal compatible



APPLICATIONS

NM-F White film combines excellent optical properties with enhanced barrier and deadfold capabilities. Target applications include lamination to other bio-polymer films for coffee, tea, confectionery, dried foods and cereal bars.

TECHNICAL PROPERTIES (TYPICAL VALUES)

PROPERTY		TEST BASIS	TEST CONDITIONS	UNITS	NM-F WHITE 90
THICKNESS		Transcendia test	-	mil	0.87
YIELD		Transcendia test	-	in ² /lb	21000
PERMEABILITY TO:	WATER VAPOR	ASTM F 1249	100°F 90% RH	g/100in ² .24 hrs	0.65
	OXYGEN	ASTM F 1927	73°F 50% RH	cc/100in ² .24 hrs	0.06
OPTICAL: OPTICAL DENSITY		Transcendia test	-	-	2.5
COEFFICIENT OF FRICTION (FILM TO FILM)		ASTM D 1894	Non-metallized surface	-	0.3
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
SEAL STRENGTH		Transcendia test	275°F; 0.5 secs; 10 psi	g(f)/in	200

TYPICAL BARRIER DATA AS PART OF A LAMINATE:

FILM	MVTR (100°F, 90% RH) g/100in ² /day	OTR (73°F, 50% RH) cc/100in ² /day	RECOMMENDED ADHESIVE TYPE	STRUCTURES
NM-F WHITE	0.08	<0.05	SB or WB	Paper//NM-F White// Biosealant NM-F White// Biosealant

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 (¹⁴ C)	96%	ASTM D6866
Biomass content (total)	89%	Transcendia calculation
Carbon footprint (GHG) kgCO ₂ 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	AS5810-2010, NF TSI - 800:2015
Anaerobic digestion	Not tested	ISO 15985
Marine biodegradation	90% Biodegradation requirement achieved	OK for marine biodegradation

NatureFlex™ NM-F White 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

The non-metallized surface of NatureFlex™ NM-F White is formulated to comply with USA 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. The metallized surface should not be placed in contact with foods. 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™ NM-F White 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™ NM-F White 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.

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