Product Range

FUTAMURA

NatureFlex™
NEXT GENERATION PACKAGING

Renewable and Compostable Films for Packaging and Labels

All of our films are renewable and certified compostable[a]

European Home Composting	European Industrial Composting	European Industrial Composting	USA Industrial Composting	Global Forestry Management	Australian Home Composting

Coated NatureFlex™ - heat sealable both sides

Description	Film	Yield		Permeability to			Heat Seal Range	Optimum Deckle Widths	Literature Ref.
		(m²/kg)	(microns)	H_2O (g/m².24hrs) ASTM E 96		O_2 (cc/m².24hrs) ASTM F1927	(°C) 0.5s dwell 69kN/m²	(mm)	
				25°C 75% RH	38°C 90% RH	23°C 50% RH			
Transparent film with high moisture barrier	19NK 23NK 30NK 45NK	35.7 29.9 23.3 15.5	19.4 23.3 29.9 45.0	5	20	5	115-170	1510 (19µ) 1280/1520 (23µ) 1520 (30u) 1280 (45µ)	N700
White film with high moisture barrier	22NK 26NK 42NK White	29.9 25.6 15.5	22.0 25.5 42.2	5	20	5	115-170	1520 (22/26µ) 1280 (42µ)	N710
Transparent, high barrier film with enhanced jaw-release	23NKR 30NKR	29.9 23.3	23.4 30.0	5	20	5	115-170	1448	N750
Transparent film with enhanced moisture barrier	23NE 30NE 42NE	29.9 23.3 16.7	23.3 29.9 41.7	15	75	5	80-200	1520	N300
Transparent film with intermediate moisture permeability	23NVR 30NVR 45NVR	29.9 23.3 15.5	23.3 29.9 45.0	90	120	5	80-200	1280/1520 (23µ) 1520 (30µ) 1280 (45µ)	N530
Transparent, moisture permeable film for microwave and ovenable applications	23NVO 30NVO	29.9 23.3	23.3 29.9	150	450	5	90-200	1520	N560
Transparent, moisture permeable film	23NVS 30NVS 45NVS	29.9 23.3 15.5	23.3 29.9 45.0	200	600	5	90-200	1280/1520 (23µ) 1520 (30µ) 1280 (45µ)	N510
White, moisture permeable film	22NVS 42NVS White	15.5	42.0	200	600	5	90-200	1280	N540
Transparent, moisture permeable film	23NLS 30NLS	29.9 23.3	23.3 29.9	350	600	5	90-160	1280 (23µ) 1280/1520 (30µ)	N800

[a] Please refer to datasheets for individual certifications

FUTAMURA

Coated NatureFlex™ - heat sealable one side

Description	Film	Yield		Permeability to			Heat Seal Range	Optimum Deckle Widths	Literature Ref.
		(m²/kg)	(microns)	H_2O (g/m².24hrs) ASTM E 96 25°C 75% RH	H_2O (g/m².24hrs) ASTM E 96 38°C 90% RH	O_2 (cc/m².24hrs) ASTM F1927 23°C 50% RH	(°C) 0.5s dwell 69kN/m²	(mm)	
Transparent, high barrier film for lamination	22DNE	31.3	22.2	25	75	5	80-200[b]	1510	N320

Metallised NatureFlex™ - one side metallised

Description	Film	Yield		Permeability to		Heat Seal Range	Optimum Deckle Widths	Literature Ref.
		(m²/kg)	(microns)	H_2O (g/m².24hrs) ASTM F 1249 38 °C 90% RH	O_2 (cc/m².24hrs) ASTM F1927 23°C 50% RH	(°C) 0.5s dwell 69kN/m2	(mm)	
High barrier film for twistwrap, flow wrap and lamination	23NM 30NM 45NM	29.9 23.3 15.5	23.3 29.9 45.0	10	1	90-200[b]	1450 (23/30µ) 1240 (45µ)	N500
High barrier film for twistwrap and flow wrap	23NKM	29.9	23.3	10	1	115-170[b]	1450	N720
High barrier film specifically designed for lamination	20NKME	34.5	20.1	10	1	115-170[b]	1450	N721

Uncoated NatureFlex™

Description	Film	Yield		Permeability to		Heat Seal Range	Optimum Deckle Widths	Literature Ref.
		(m²/kg)	(microns)	H_2O (g/m².24hrs) ASTM E 96 38 °C 90% RH	O_2 (cc/m².24hrs) ASTM F1927 23°C 50% RH	(°C) 0.5s dwell 69kN/m2	(mm)	
Transparent film for applications such as bagmaking where moisture barrier is not required	21NP[c] 23NP 25NP 28NP 35NP 42NP	33.3 30.8 28.6 25.0 20.0 16.7	20.8 22.6 24.3 27.8 34.7 41.7	N/A	10	N/A	1440	N200
Transparent film designed for bag making applications	28NPF	25.0	27.8	N/A	10	N/A	1440	N220
Transparent film for adhesive tapes	400NPU 450NPU 475NPU	25.0 22.2 21.1	27.7 31.2 33.0	N/A	10	N/A	1440/1500 (400 NPU) 1270/1520 (450/475 NPU)	N400

[b] Heat seal side to heat seal side only
[c] Coloured versions of these grades are also available, please contact our Marketing team for more details

FUTAMURA

NatureFlex™ Film Grade Summary

Grade	NK	NKR	NE	NVR	NVO	NVS	NLS	DNE	NM	NKM	NKME	NP/ NPF/ NPU
Coated	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Uncoated												✓
Oxygen barrier	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Moisture barrier	✓	✓	✓					✓	✓	✓	✓	
Moisture permeable				✓	✓	✓	✓					✓
Heat sealable two-sides	✓	✓	✓	✓	✓	✓	✓					
Heat sealable one-side								✓	✓	✓	✓	
Peelable seals	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Printable	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Recommended for lamination	✓	✓			✓	✓	✓	✓	✓		✓	✓
Suitable for labels						✓			✓			
Ovenable & microwavable					✓							
White version	✓					✓						
Coloured version				✓								✓
Metallised									✓	✓	✓	

NatureFlex™
NEXT GENERATION PACKAGING

FUTAMURA

Disclaimer: Futamura Chemical Company, or any of its affiliated companies (hereinafter 'Futamura') declines any liability with respect to the use made by any third party of the information contained herein. The information contained herein represents Futamura's best knowledge thereon without constituting any express or implied guarantee or warranty of any kind (including, but not limited to, the accuracy, the completeness or relevance of the data set out herein). Futamura is the sole owner or authorised user of the intellectual property rights relating to the information communicated.

The information relating to the use of the products is given for information purposes only. No guarantee or warranty is provided that the product is adapted to the client's specific use. The client should perform his own tests to determine the suitability for a particular purpose. The final choice of use of a product remains the sole responsibility of the client

Sales Offices

Europe (UK) T: +44 (0)16973 41212
Americas (USA) T: +1 770 818 3102
Asia-Pacific (Japan) T: +81 52 562 1841

www.futamuragroup.com
E: info@futamuragroup.com
™Trademark of Futamura Group

Pub.Nr. N100 – Version J – UK