

Ingeo™ Fibers Brand Policy

"Ingeo fibers" means fibers (a) made by NatureWorks LLC ("NW LLC") or by a third party under license from NW LLC, and (b) made from 100% polylactic acid (PLA) manufactured by NW LLC or a blend of such PLA and other materials approved by NW LLC.

The Ingeo fibers brand policy has 4 components:

1. Policy relating to the use of child labor
2. Prohibited substances policy
3. Blend Policy
4. Accreditation Policy

Any products or product components commercially marketed or sold as being made from or with Ingeo Fibers must meet the requirements of all of these policies in order to bear the Ingeo logo and/or trademark. The policies are described in their entirety below:

1. Policy Relating to the Use of Child Labor

Licensees must comply in all respects with the International Labour Organization's Convention Concerning Minimum Age for Admission to Employment (C138, 1973) and Convention concerning the Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour (C182, 1999). These conventions can be found at the following links:

www.ilo.org/ilolex/cgi-lex/convde.pl?C138
www.ilo.org/ilolex/cgi-lex/convde.pl?C182

2. Prohibited Substances Policy

A significant component of the value of NW LLC's PLA product and brands lies in PLA's more environmental friendly and sustainable feedstocks and processes. There are substances that could be used with PLA that could substantially diminish this value. Because of this, NW LLC has a definitive policy regarding limitations on the materials that can be added to, blended with or used to further process PLA-based products. This is attached as Appendix A.

NW LLC has established this list of prohibited substances to provide objective guidance to our Licensees and to ensure continuing improvement in the sustainable nature of our technology, processes and products. NW LLC may from time to time modify this list to include additional substances that represent a significant risk. This list identifies a number of substances that may pose a significant risk to human health or the environment. The science and understanding of human and environmental effects of chemicals is continuously improving, and responsible business practices require Licensees to ensure that they are reasonably well-informed of the characteristics and potential human and environmental impacts of materials used in the course of business

3. Blend Policy

A **Fabrics (Knit, Woven, Nonwoven structures) :**

Any fabrics (or any garments which must be accredited per the product accreditation policy below) commercially marketed or sold as being made from or with Ingeo™ fibers must:

- 1 Meet industry standards for product quality and performance
- 2 Contain 100% Ingeo™ fibers or the following approved blends:
 - Blends of Ingeo fibers with up to 67% by weight "natural" fibers (as defined by US Federal Trade Commission regulations);
 - Blends of Ingeo fibers with up to 67% by weight cellulosic based fibers (e.g. viscose staple fiber, viscose filament yarn, lyocell staple fiber or acetate filament yarn)
 - Blends of Ingeo fibers with up to 10% by weight elastomeric polyurethane/spandex, when used specifically to achieve fabric stretch characteristics;
 - Blends of Ingeo fibers with up to 25% by weight Synthetic Fibers (non polyurethane), when used specifically to achieve fabric stretch characteristics; and
 - Other blends expressly approved in writing by NW LLC.

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3. Blend Policy - continued

B Carpet:

Any products commercially marketed or sold as being made from or with Ingeo™ fibers must:

- 1 Meet industry standards for product quality and performance
- 2 Contain a minimum of 33% Ingeo™ fibers or
- 3 Contain a blend expressly approved in writing by NW LLC

C Filled Products (e.g. Bedding):

Any products commercially marketed or sold as being made from or with Ingeo™ fibers must:

- 1 Meet industry standards for product quality and performance, and the licensee is solely responsible for making this determination in their end use application
- 2 Contain a minimum of 33% Ingeo™ fibers or
- 3 Other blends expressly approved in writing by NW LLC.

4. Accreditation Policy

This policy specifies which products or product components commercially marketed or sold as being made from or with Ingeo Fibers require Product Accreditation by NW LLC in order to bear the Ingeo logo and/or trademark. Please contact your Ingeo Fibers Brand representative if your product is not covered by the following guidelines.

➤ **Yarns:**

- Spun yarns containing Ingeo Fiber do NOT require product accreditation

➤ **Fabrics:**

- A knitted or woven fabric made from Ingeo fiber must be accredited
- Non-woven fabrics made from Ingeo fiber must be accredited

➤ **Garments:**

- A garment made entirely from an accredited fabric does NOT need to be accredited because it is not subject to further processing that would affect its characteristics.
- A garment made entirely from an accredited textile which is further dyed and processed during the manufacture of the garment needs to be accredited.
- A garment produced directly from yarn (e.g. sweater) with no intermediate fabric production step needs to be accredited

➤ **Filled Products:**

- Pillows, duvets, quilts, fiber beds and mattress pads made from Ingeo fiber must be accredited.
- A casing fabric for a pillow, ticking fabric for a mattress or a decorative fabric for a couch, does NOT need to be accredited if the casing/ticking/decorative fabric, as the case may be, is made entirely from a product that has been previously accredited, and the manufacturing process for the pillow or couch does not materially affect the performance or characteristics of the liner or covering.

Note: However, in filled products (i.e. pillows, duvets, mattresses, furniture), all individual textile components must either comply with the Blend Policy or be comprised of 100% natural or cellulosic based fibers

➤ **Carpet**

- Carpet made from Ingeo fiber must be accredited.

General Note: With the exception of filled products (i.e. pillows, duvets, quilts, fiber beds, and mattress pads) and carpets, if a product component is being marketed as being made from or with Ingeo fibers, only the component needs to be accredited. The end product of which the component is a part need not be accredited if the end product as a whole is not being marketed as being made from or with Ingeo fibers.

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Appendix A: Prohibited Substances List

- (A) Licensees will not intentionally use any Persistent Organic Pollutants (POPs) in PLA. POPs are defined under the UN Convention on Persistent Organic Pollutants in Final Act of the Conference of Plenipotentiaries on the Stockholm Convention on Persistent Organic Pollutants in Annex A, B, & C on 22 May 2001. More information regarding POPs can be found at the following web site: <http://www.pops.int>. The 12 chemicals are:

Aldrin	309-00-2	Hexachlorobenzene (HCB)	118-74-1
Chlordane	57-74-9	Mirex	2385-85-5
Dichlorodiphenyl-trichloroethane (DDT)	50-29-3	Polychlorinated biphenyls (PCB)	
Dieldrin	60-57-1	Polychlorinated dibenzo-p-dioxins (dioxins) (PCDD)	
Endrin	72-20-8	Polychlorinated dibenzofurans (furans) (PCDF)	
Heptachlor	76-44-8	Toxaphene	8001-35-2

- (B) Licensees will not intentionally use any substances in the U.S. Environmental Protection Agency in the Toxics Release Inventory "Persistent, Bioaccumulative and Toxic" (PBT) list (promulgated under Section 313 of the Emergency Planning and Community Right to Know Act of 1999 (EPCRA). Here are the 16 PBT chemicals and 4 PBT chemical compound categories that are subject to reporting under the EPCRA section 313:

Dioxin and dioxin-like compounds
 Lead Compounds
 Lead and Lead Compounds
 Mercury compounds
 Polycyclic aromatic compounds (PACs)

Aldrin	309-00-2	Methoxychlor	72-43-5
Benzo(g,h,i)perylene	191-24-2	Octachlorostyrene	29082-74-4
Chlordane	57-74-9	Pendimethalin	40487-42-1
Heptachlor	76-44-8	Pentachlorobenzene	608-93-5
Hexachlorobenzene	118-74-1	Polychlorinated biphenyl (PCBs)	1336-36-3
Isodrin	465-73-6	Tetrabromobisphenol A	79-94-7
Lead	7439-92-1	Toxaphene	8001-35-2
Mercury	7439-97-6	Trifluralin	1582-09-8

- (C) Licensees will not intentionally add, or have present at or above 1000 ppm in their end product, any carcinogenic materials as defined by ACGIH Chemical Substance TLV Committee under category A1 (Confirmed Human Carcinogen) or A3 (Confirmed Animal Carcinogen defines these materials with Unknown Relevance to Humans) of ACGIH 2002 TLVs.

- (D) Licensees will not intentionally add, or have present at or above 500 ppm, any heavy metals on the following list:

Arsenic (Ar)	Cadmium (Cd)	Mercury (Hg)
Lead (Pb)	Chromium (Cr ⁺⁶)	Nickel (Ni)

- (E) Licensees will not intentionally add, or have present at or above 500 ppm endocrine disruptors which interfere with endocrine system function. Such substances are currently known to include:

Atrazine	DDT	Dioxins (2,3,7,8-)	p-Nonylphenol
Chlordanes	1,2-Dibrom0-3-Chloropropane	Endosulfans	PCBS
Chlordecone (Kepone)	Dicofol (Kelthane)	Furans (2,3,7,8-)	Toxaphene
DDD	Dieldrin	Lindane	Tributyl Tin
DDE	Diethylstilbestrol (DES)	Methoxychlor	

- (F) Ozone Depleting Chemicals/Substances/Products (See 40 CFR 82). Licensees will not add, or have present in their products, ozone-depleting chemicals, substances or products. The US EPA listed ozone-depleting substances currently include:

HCFC's		
chlorofluorocarbon-11 (CFC-11)	halon-2402	chlorofluorocarbon-214 (CFC-214)
chlorofluorocarbon-12 (CFC-12)	chlorofluorocarbon-13 (CFC-13)	chlorofluorocarbon-215 (CFC-215)
chlorofluorocarbon-113 (CFC-113)	chlorofluorocarbon-111 (CFC-111)	chlorofluorocarbon-216 (CFC-216)
chlorofluorocarbon-114 (CFC-114)	chlorofluorocarbon-112 (CFC-112)	chlorofluorocarbon-217 (CFC-217)
chlorofluorocarbon-115 (CFC-115)	chlorofluorocarbon-211 (CFC-211)	carbon tetrachloride
halon-1211	chlorofluorocarbon-212 (CFC-212)	methyl chloroform
halon-1301	chlorofluorocarbon-213 (CFC-213)	