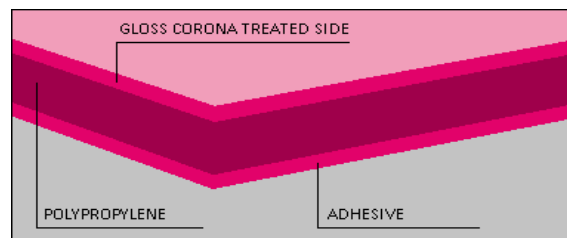


## TK BIOX MATT

Profile \*Polypropylene bio-gradable-oxo thermal matt film

Features \*The film is rendered as oxo biodegradable by combination of heat and UV as first step and absorption by micro-organism naturally present in will enhance gloss, scuff resistance when laminated onto paper or cardboard and offers a very high quality image to book covers, corporate brochures, posters and magazines. One side is EVA coated, other side is corona treated.



\*This film is suitable for printing onto, UV Varnishing & Hot foil stamping (tests should be made prior to actual job for suitable inks and varnish types).

PHYSICAL PROPERTIES $\pm 3\%$	TEST METHOD	UNIT	VALUES
Thickness	Micrometer	micron ( $\mu\text{m}$ )	27
Grammage	Internal	$\text{g/m}^2$	23,47
Yield	Internal	$\text{m}^2/\text{kg}$	42,60
Co-efficient of friction	ASTM D 1894	-	0,30
Wetting tension	ASTM D 2578	Dyne/cm	40

MECHANICAL PROPERTIES $\pm 3\%$	TEST METHOD	UNIT	VALUES
Tensile strength	ASTM D-882	$\text{N/mm}^2$	MD 110
			TD 200
Elongation	ASTM D-882	%	MD 150
			TD 70

PHYSICAL PROPERTIES $\pm 3\%$	TEST METHOD	UNIT	VALUES
Shrinkage 120°C, 5min	ASTM D1204	%	MD 4,0
			TD 2,0
Recommended lamination temperature.		°C	105 $\pm$ 10

MD = Machine direction      TD = Transverse direction

OPTICAL PROPERTIES $\pm 3\%$	TEST METHOD	UNIT	VALUES
Gloss 60°	ASTM D 2457	GU	6,5

Storage conditions: For best performance store in a dry and clean place (20°C, 40% of relative humidity).

Disclaimer: The information provided above is to the best of knowledge of the supplier, the values provided are test results, which are indicative only and provided for guidelines.

Ultralen® registered trademark

The aforementioned data are given most conscientiously but without any obligation. Any processing details are provided merely for guidance, it is the user's responsibility to check the suitability of the product for the intended application.

Warranty: This product has a warranty of 180 days from the date on the invoice; claims after 180 days from the date on the invoice cannot be accepted. Please always keep the full label details of the roll available for warranty purposes, without full label details we cannot handle or accept claims.

## TK BIOX MATT

### Declaration of Compliance (Part 1.)

We have pleasure in Confirming that Ultralen, s GmbH  
Oxo-Biodegradable BOPP TK Matt film meets the following respective regulations:

#### EEC

**Food contact status:** Regulation (EC) No.1935/2004 of the European Parliament and of the Council of 27 October 2004 on materials and articles to come into contact with food and fulfill the requirements as described in Regulation (EU) No. 10/2011 as amended up to Regulation (EU) No. 2019/37 on plastic materials and articles intended to come into contact with food.

Overall migration Test will be carried out with reference to Annex III and Annex V for selection condition for material to determine Overall migration, under the condition of 10 days at 40 °C, in the food simulant: 3% Acetic acid (W/V) aqueous solution, 10% Ethanol (V/V) aqueous solution, Rectified olive oil show that the Overall Migration limit of 10 mg/dm<sup>2</sup> food is not exceeded.

**Reference to EN 14582:2016** - against Halogen: Fluorine (F), Chlorine (Cl), Bromine (Br) and Iodine (I).

**RoHS (Restriction of Hazardous Substances)** Directive (EU) 2015/863; recasting Annex II to 2011/65/EU.

- With reference to IEC 62321-5: 2013, determination of Cadmium (Cd), determination of Lead (Pb).
- With reference to IEC 62321-4: 2013+AMD 1:2017, determination of Mercury (Hg).
- With reference to IEC 62321-7-2: 2017, determination of Hexavalent Chromium (Cr (VI)).
- With reference to IEC 62321-6: 2015, determination of Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE) content.
- With reference to IEC 62321-8 : 2017, determination of Dibutyl Phthalate (DBP) content, Benzylbutyl Phthalate (BBP) content, Bis-(2-ethylhexyl) Phthalate (DEHP) content, Diisobutyl Phthalates (DIBP) content.

## TK BIOX MATT

### Declaration of Compliance (Part 2.)

**Directive 94/62** and amendments, on packaging and packaging waste (PPW) on request to the limit set (100ppm) for heavy metals defined as lead, cadmium, mercury and chromium VI.

**Directive 2005/84** relating to restrictions on the marketing and use of certain dangerous substances and preparations (phthalates in toys and childcare articles), now included in annex XVII of REACH Regulation. The product does not contain any of the phthalates included in mentioned annex at concentrations above the applicable limits.

**European Norm EN 71** relating to safety in toys: Part 3 (migration of certain elements) and Part 9 (organic chemical compounds). In the manufacture of our products, we do not intentionally incorporate as additive any of the chemicals regulated in these norms, in quantities above the applicable limits. Thus, it is not foreseeable their presence in the final product. However, most of these chemicals have not been specifically analyzed to assure their absence.

The film does not contain intentionally incorporated dual use additives, which are subject to disclosure of adequate information as described in Annex IV of Commission Regulation (EU) no 10/2011.

#### US

**FDA regulation.** Complies with the United States of American Food and Drug Administration Code of Federal Regulation 21 CFR 175.1520 for determining the amount of extractives from Olefin polymers.

**Complies to Standard ASTM 963-11 soluble heavy metal in Substrate Materials/paint and similar surface-coating materials;** for determining Soluble Lead(Pb), Soluble Antimony (Sb), Soluble Arsenic (As), Soluble Barium(Ba), Soluble Cadmium (Cd), Soluble Chromium (Cr), Soluble Mercury(Hg), Soluble Selenium (Se).

**CONEG** (Coalition of Northeastern Governors-USA): The total content of lead, mercury, chromium VI and cadmium is less than 100ppm.

#### **Complies with Public Law 110-314 Consumer Product Safety Improvement Act of 2008 (CPSIA):**

- CPSIA section 101(a)(2)- Lead in accessible substrate materials (including Children's Metal Jewelry)
- CPSIA section 108 – Phthalates

**California Proposition 65** (Safe Drinking Water and Toxic Enforcement Act of 1986): list of California State relating to chemicals known to the state to cause cancer or reproductive toxicity (update January 2017): this product does not intentionally incorporate any of the chemicals regulated in quantities above the applicable limits.

## TK BIOX MATT

### Declaration of Compliance (Part 3.)

#### People's Republic of China Regulation Compliance

The manufacture process of this product complies with **GB 31603-2015** National Food Safety Standard on the General Hygiene Norms in the Manufacture of Food-Contact Materials and Articles.

The product compliance with **GB 4806.1-2016** General Safety Requirements standard for Food-Contact Materials and Articles

The resin used in the product compliance with PRC Standard **GB 4806.6-2016** Food Contact Plastic resin.

The product compliance with PRC Standard **GB 4806.7-2016** Food Contact Plastic Material and Product.

The product compliance with PRC standard **GB 9685-2016** Standards for Using of Additives of food contact material and product.

#### Absence of substances and chemicals

None of the following substances are used as additives or raw materials in the manufacture of this Film. However, since we do not systematically perform specific tests to verify the absence of these substances, we cannot guarantee that there is no trace amount of these substances, as impurity or otherwise, in this BOPP Film.

##### **1. Epoxy derivatives:**

- BADGE [2,2-bis(4-hydroxyphenyl)propane bis(2,3-epoxypropyl) ether],
- BFDGE [bis(hydroxyphenyl)methane bis(2,3-epoxypropyl) ether],
- NOGE [novolac glycidyl ether]

as defined in Directive 2002/16/EC amended by 2004/13/EC, repealed by the Regulation 1895/2005/EC.

##### **2. Allergens:** as defined in Directive (EC) No. 68/2007 annex IIIa.

##### **3. Food additives or flavorings:** as defined in Directive (EC) No. 19/2004.

##### **4. PBT** (persistent, bioaccumulative, toxic)

##### **5. vPvB** (very persistent, very bioaccumulative)

##### **6. Genetically Modified Organism (GMO)**

**7. MOSH and MOAH :** MOSH (Mineral Oil Saturated Hydrocarbons) and MOAH (Mineral Oil Aromatic Hydrocarbons) are not intentionally added as raw materials or additives during production of our film, although raw materials and additives used may contain small amount of polypropylene oligomer.

**8. Nanoparticles:** we does not incorporate in this product any additive in nanoparticle form.

**9. Conflict Minerals:** this product does not intentionally incorporate in its composition any of the metals Tantalum, Tin, Gold and Tungsten.

**10. Bisphenol A:** Commission Implementing Regulation (EU) 2018/213 of February 2018 amending Regulation 10/2011.

## TK BIOX MATT

### 11. Other substances:

- Substances of Very High Concern (SVHC) as stated in article 57, Regulation (EC) No.1907/2006
- Bisphenol AP CAS# 1571-75-1
- Bisphenol AF CAS# 1478-61-1
- Bisphenol B CAS# 77-40-7
- Bisphenol BP CAS# 1844-01-5
- Bisphenol C CAS# 79-97-0
- Bisphenol CII CAS# 2081-08-5
- Bisphenol E CAS# 620-92-8
- Bisphenol F CAS# 87139-40-0
- Bisphenol G CAS# 127-54-8
- Bisphenol M CAS# 13595-25-0
- Bisphenol S CAS# 80-09-1
- Bisphenol P CAS# 2167-51-3
- Bisphenol PH CAS# 24038-68-4
- Bisphenol TMC CAS# 129188-99-4
- Bisphenol Z CAS# 843-55-0
- Fluorurated Substances
- Chlorine Substances
- Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene (BNST) CAS# 68921-45-9
- Beryllium ,Beryllium compounds CAS#7440-41-7
- Chlorinated Paraffins, Short and Medium Chain (SCCP and MCCP)
- Dimethylfumarate (DMFu) CAS#624-49-7
- Formaldehyde CAS# 50-00-0
- Hexabromocyclododecane (HBCDD) CAS#25637-99-4, 3194-55-6,134237-50-6, 134237-51-7, 134237-52-8
- Methyl-phenol compounds CAS# 95-48-7, 106-44-5, 108-39-4, 1319-77-3
- Perchlorates CAS# 7601-89-0, 7778-74-7,7790-98-9,7791-03-9,10034-81-8
- PFOA and compounds
- PFOS and compounds
- Polychlorinated Terphenyl (PCT) CAS# 61788-33-8
- Radioactive Substances
- Tetrabromobisphenyl A (TBBA,TBBPA) CAS# 79-94-7
- Toluene CAS#108-88-3
- n-Propyl Bromide (nPB) CAS#106-94-5
- Additive Phosphorous Flame Retardants
- Aminoethyl ethanolamine CAS# 111-41-1

## TK BIOX MATT

- Biocides
- Diphenylamines, Substituted (SDPA)
- Endocrine Disrupting Chemicals(EDCs)
- Indium Phosphide CAS# 22398-80-7
- Per- and Polyfluoroalkyl Substances(PFAS)
- Beryllium Dust and Fumes CAS# 7440-41-7
- n-Hexane CAS# 110-54-3
- N-methylpyrrolidone (NMP) CAS# 872-50-4
- PVC
- PVDC
- Polycyclic Aromatic Hydrocarbons (PAHs)
- Animal origin substances
- OGM
- Titanium Acetyl Acetate (TAA)
- Quaternary ammonium salts
- Didecylmethylammonium Chloride (DDAC)
- Benzalkonium chloride (BAC)
- Anthraquinone CAS# 84-65-1
- Asbestos
- Azocolorants
- Benzene CAS# 71-43-2
- Hexane CAS# 110-54-3
- Benzophenone derivate CAS# 117-99-7, 13020-57-0, 1137-42-4
- Chlorinated Aliphatic Compounds CAS# 56-23-5; 79-34-5; 630-20-6; 76-01-7; 67-663; 79-00-5; 73-35-4; 71-55-6
- CMR Substances
- Dioxins and difurans
- Irradiation agents
- Palm oil and derived substances
- Substances derived from the rice plant
- Cyanuric acid CAS# 108-80-5
- Ozone depleting Chemicals (ODC)
- N-Methylpyrrolidone(NMP) CAS# 106-94-5
- Antimony tris (ethylene glycolate) CAS# 29736-75-2
- Sodium Antimonite A CAS# 15432-85-6
- Organic peroxides