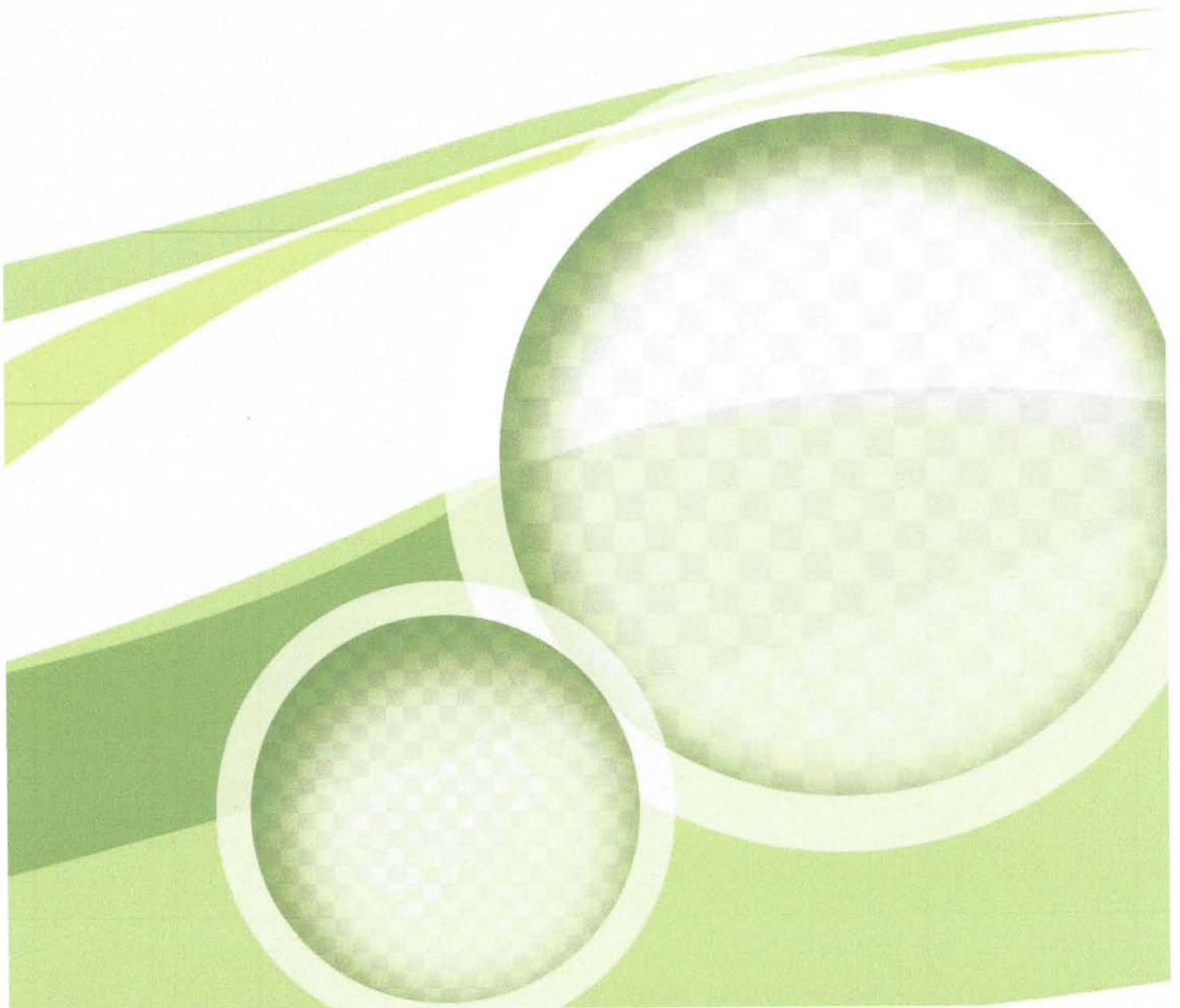


BioPVC

Introduction of BioPVC



BioPVC has been tested and well verified by Gema Polimer' lab at Istanbul and is now being widely applied to variety of PVC cards. The biodegrading aspect will not affect the function of the cards.

97% PVC + 3,0% OXO- DEGRADATION ADDITIVE

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WILL DEGRADE WITHIN 1,6 - 2,4 YEARS UNDER AEROBE
LANDFILL CONDITIONS 4,6 - 6 MONTH UNDER LITTERING CONDITIONS

【Composition:】

PVC + desiccant + a metal salt as active substance.

Remark: the metal salt is legal and not heavy metal, in fact necessary as trace-element in human diet.

【Advantage:】

BioPVC passes the test (ASTM D3826& ASTM D5208-1) of the American Society of Testing and Materials, and gets the certificate from GEMA.

【Main Products:】

PVC RFID/NFC Card

PVC Magnetic Stripe Card

PVC Card

PVC RFID/NFC Tag

PVC Sheet for Card Making

BioPVC could be used with offset printing, UV printing and all crafts such as laser engraving, embossing code, etc. as well as normal plastic PVC sheets do.

【Specification:】

Sample Size	460*305*0.38 mm
Density	1.43
Weight	0.4 kg/5 pcs
Width	915 mm the widest
Length	No limit
Thickness	0.15-0.7 mm
Supply ability	500 tons/month

Q&A about BioPVC

---- An OXO-biodegradable PVC

【1. What is OXO biodegradable?】

OXO-biodegradation is defined by CEN (the European Committee for Standardization) as "degradation resulting from oxidative cleavage of macromolecules followed by biodegradation." Whilst sometimes described as "OXO-fragmentable" and as "OXO-degradable" this describes only the first or oxidative phase. These descriptions should not be used for material which degrades by the process of OXO-biodegradation defined by CEN, and the correct description is "OXO-biodegradable."

【2. What is advantage of OXO biodegradation?】

a. OXO-biodegradation has the same effect with organic degradation, what's more, it is cheaper and simpler technology than organic degradation.

b. OXO-bio plastic can be safely recycled with other oil-based plastic, but most bio-based "compostable" plastic cannot.

c. Many biodegradable polymers that come from renewable resources (i.e. starch-based, PHA, PLA) also compete with food production, as the primary feedstock is currently corn. For the US to meet its current output of plastics production with BPs, it would require 1.62 square meters per kilogram produced. While this space requirement could be feasible, it is always important to consider how much impact this large scale production could have on food prices and the opportunity cost of using land in this fashion versus alternatives.

【3. Does it degrade in landfill, as litter in backyard compost?】

Yes, BioPVC take 19 - 29 months to degrade in landfill. As litter it takes 4-6 months.

【4. Plastic never really go away, even when they break down into pieces too small to be seen with the naked eyes. How does BioPVC work into the environment?】

BioPVC will continue to fragment until the material has biodegraded to nothing more than CO₂, water, humus, and trace elements and is small enough for microbes to ingest it as a food source. Therefore, it is not a harmful material to the environment.

【5. Does it contain "heavy metals" ?】

No, BioPVC contains only minerals typically found in mineral supplements and plants.

It is not heavy metal which are restricted by the EU Packaging Waste Directive 94/62 Art 11.

【6. Do we need to reach any condition to make the PVC degrade?】

OXO-biodegradable products do not degrade immediately in an open environment because they are stabilized to give the product a useful service-life.

The OXO-biodegradable plastic is standard, durable plastic, it won't degrade until it hits the time trigger. Time trigger could be set at 6 months, 1 year, 5 years or longer.

【7. Are there any potential toxicity of OXO plastic breakdown residue?】

OXO-bio products have to pass the eco-toxicity tests in ASTM D6954, for now there is no evidence to show OXO plastic breakdown residue. And Eco toxicological tests were performed according to ASTM and CE standards and BioPVC has passed all the tests.

【8. Isn't it made from oil?】

The BioPVC is made of 97% PVC and 3.0% oxo-degradation additive. It is made from a by-product of oil or natural gas. It makes good environmental sense to use the by-product, instead of wasting it by "flare-off" at the refinery and using scarce agricultural resources to make plastics.

【9. Is it 100% recyclable at any time?】

Yes, BioPVC will not degrade until it hits the time trigger and exposes in oxygen and UV light. It can be safely recycled along with other oil-based plastics, while most other bio-based "compostable" plastic cannot.