

Polypropylene Applications



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Products successfully incorporating **TDPA®** additives include:

- cigarette packaging
- coating polypropylene on paper
- cotton swab sticks
- cups, cutlery
- degradable, metallized OPP films and products
- drinking straws
- flexible packaging film
- food packaging (snacks, candy, bakery)
- liners for boxed foods
- refuse, garbage, compost bags
- tapes, labels
- windows for envelopes



Use **EPI's TDPA®** totally degradable plastic additives to create degradable plastics...

... a cost effective and environmentally responsible solution for manufacturers using commodity resins (**PE, PP, PS**).

Superior Advantage with No Loss of Product Performance

	Conventional	TDPA®
Tensile Strength	✓	✓
Elongation	✓	✓
Impact Resistance	✓	✓
Clarity	✓	✓
Printability	✓	✓
Permeability	✓	✓
Sealability	✓	✓
Food Contact Compliant	✓	✓
Recyclable	✓	✓
Degradability	✗	✓

- ▶ Customized degradable and biodegradable additives: formulated for compost and landfill environments including inadvertent litter disposal.
- ▶ Ideal for single use or limited life cycle applications.
- ▶ A cost effective and competitively priced PE product.
- ▶ Complies with **FDA** (USA) and **EFSA** (re. applicable EU legislation concerning food-contact materials).
- ▶ No change to sealability, printability or tensile strength.
- ▶ Processed on existing manufacturing equipment.
- ▶ Product quality and production rates unchanged.
- ▶ Endorsed by **EPI's** International Scientific Advisory Board (**ISAB**) and the OxoBiodegradable Plastics Institute (**OPI**).
- ▶ No adverse toxicological effects or by-products.
- ▶ A degradable product (degradation end-point as per ASTM D3826).
- ▶ A biodegradable product (biodegradability measured as per ASTM D5988).
- ▶ Degradation triggered by heat and/or UV light (enhanced by mechanical stress).
- ▶ Recyclable (pre and post-consumer prior to degradation) and reusable until noticeable breakdown with no harmful residues.
- ▶ A controlled lifetime product from point of manufacture, to service life, to final disposal.
- ▶ Proven to degrade in a landfill environment, ultimately taking up less landfill space.
- ▶ Helps reduce waste and will assist in the reduction of greenhouse gases.
- ▶ Preserves the environment for future generations.

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