

# OXO-BIODEGRADABLE MASTERBATCH

SUPREME Oxo-biodegradable masterbatch is an advanced & eco-friendly formulation designed for use in polyolefins. It is able to completely biodegrade PE / PP, and can control the time of initiation & the rate of polymer degradation.

The masterbatch is dosed at 1-2% into the polymer at the film manufacturing stage. The product behaves like any other during its intended service life. After its useful life, the packaging may end up in the open environment. At this stage the additive takes effect and the degradation follows a two step process –

- ❖ Oxidation phase involves breaking down of complex molecular structure into low molecular weight chains in the presence of additive, sunlight & oxygen. The polymer loses its strength and becomes brittle.
- ❖ Biodegradation phase involves conversion of low molecular weight chains (litter) into CO<sub>2</sub>, H<sub>2</sub>O & biomass in the presence of bacteria present in the soil.

If the plastic is used properly it will have a long shelf life lasting many years, but once exposed to sunlight & oxygen, the degradation process initiates converting the plastic to litter. The litter could degrade in 12 – 24 months depending on the prevalent conditions.

**Oxo-biodegradable plastics are not intended for composting.**



### Benefits of Oxo-Biodegradable Masterbatch

- ❖ Reduce impact of plastic waste on environment
- ❖ Effective at low dosages
- ❖ Works with virgin & recycled plastics
- ❖ Does not require any modification / investment in machinery
- ❖ Excellent physical & optical properties in films
- ❖ Insurance policy against litter
- ❖ Enhances your marke

### Applications of the Oxo-Biodegradable Masterbatch

Shopping bags, Carry bags, Garbage bags, Medical waste bags, Textile & Garment bags, Food packaging films, Non Wovens, Foamed / Molded Disposables.

### Available Grades

Grades	Dosage (%)	Compatible Polymers	Remarks
SP7128 0001	1 to 2	PE, PP	Recommended for transparent applications al

### Regulatory Compliance

Tested as per ASTM D5208 & ASTM D6954

Complies with European directive 2002/72/EEC for overall migration & council of Europe committee of ministers, Resolution AP(89) I for colour migration.

The grade is Heavy Metal free and is compliant with RoHS regulation.

### Packaging & Storage

Material is supplied in pellet form, packed in 25 Kg laminated bags. SPL recommends storage of material in a ventilated & covered facility, protected from Moisture, Sunlight and Heat. The packing material used is not UV stabilized and hence should not be exposed to sunlight.



## SUPREME PETROCHEM LTD

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