

# Biodegradable aqueous polyester resins

Corporate  
Website  
Product  
information



Developed product

## GX-1547

- Water-based polyester resin composed only of good degradable raw materials and showing good biodegradability.
- Environmentally friendly, **low VOC**.
- Consists only of ingredients listed on the "FDA" and "The Positive List System for Food Utensils, Containers, and Packaging".
- Solid resin is well soluble in ethyl acetate and methyl ethyl ketone and can be used in solvent-based.
- Resin that can be used in either water-based or solvent-based systems.**
- Application: Fertilizer cover material, Plasticizer, Thermal paper, Paper processing etc.



### General properties

General properties		GX-1547
FDA		\$175.105, \$175.300
Solid content		25%
Solvent		Water:75%
Appearance		Light blue-white liquid
Product viscosity (mPa·s/20℃)		5
pH (10% aq)		6.0 ~ 9.0
Tg		55℃
Acid value (mgKOH/g)		40 ~ 70
Solvent solubility •solid content:50% •dissolving temperature:25℃	Ethyl acetate	○
	Methyl ethyl ketone	○

### Coating properties

Coating properties		GX-1547
Water resistance (25℃)		△
Hot water resistance (80℃)		△
Solvent resistance	Ethanol	△
	Isopropyl alcohol	△
	Hexane	○
	Toluene	△
	Ethyl acetate	×
	Methyl ethyl ketone	×

**Results** ○: no change, △: whitening, ×: dissolution

- Coating condition (base material: PET film): drying condition 120°C × 5 min, dry thickness about 3μm
- Water resistance: Appearance change in 24 hours of immersion in water at 25°C.
- Hot water resistance: Appearance change in 30 minutes of immersion in hot water at 80°C.
- Solvent resistance: Appearance change after rubbing (5 round trips) with a cotton swab, soaked in solvents.

### Biodegradability Evaluation

(JIS K6953-2 (ISO 14855-2), Determination of the ultimate aerobic biodegradability of plastic materials under controlled composting conditions)

