Biodegradable aqueous polyester resins

Corporate Website
Product information

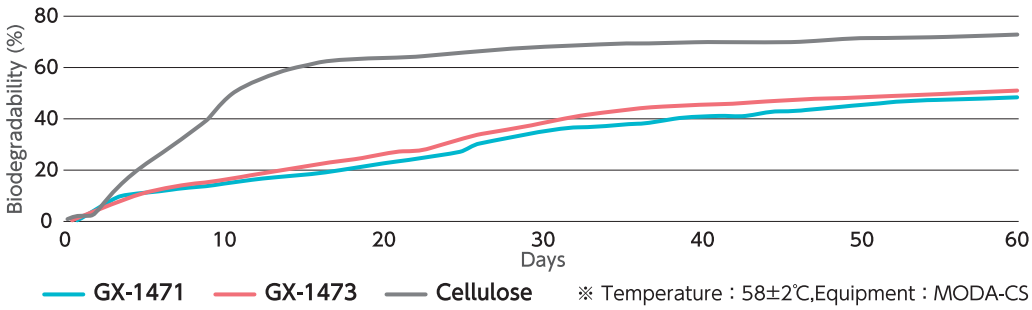
GX-1471・GX-1473

- Water-based polyester resin that is biodegradable by microorganisms under certain conditions.
- Environmentally friendly, low VOC.
- Excellent transparency after coated.
- Consists only of ingredients listed on the "FDA" and "The Positive List System for Food Utensils, Containers, and Packaging".
- Application : Fertilizer cover material, Plasticizer, Thermal paper, Paper processing etc. (Solid resin can also be provided.)

General properties	GX-1471	GX-1473
Solid content	25%	25%
Solvent	Water : 75%	Water : 75%
Appearance	Light yellow liquid	Light blue-white liquid
Product viscosity (mPa・s/20℃)	15	5
pH (10%aq)	4.0～7.0	5.0～8.0
Tg	48℃	49℃
Acid value (mgKOH/g)	<10	50～70
FDA	§175.105	§175.105 §175.300
Feature	Non solvent	Non solvent High acid value

Biodegradability Evaluation

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



Coating properties		GX-1471	GX-1473
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℃×5min, dry thickness about 3μm.
・Water resistance : Appearance change in 24 hours of immersion in water at 25℃.
・Hot water resistance : Appearance change in 30minutes of immersion in hot water at 80℃.
・Solvent resistance : Appearance change after rubbing (5 round trips) with a cotton swab, soaked in solvents.

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Contact

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