

# Recycled-PET derived aqueous polyester resins

Corporate Website  
Product information



GX-1486 · GX-1487 · GX-1488 · GX-1489

- ◆ A water-based polyester resin coating agent that uses recycled PET as the resin material.
- ※ Recycled-PET ratio : 50 ~ 60wt% of resin materials (PET bottle-derived).
- ◆ Environmentally friendly, low VOC.
- ◆ Excellent transparency after coated.
- ◆ Available for in-line and off-line coating.
- ◆ Application : Automotive interior materials, Floor carpet

General properties	GX-1486	GX-1487	GX-1488	GX-1489
Recycled-PET ratio	60wt%	60wt%	50wt%	50wt%
Solid content	25%	22%	25%	25%
Solvents	Water : 75%	Water : 68% PnP* : 10%	Water : 75%	Water : 70% PnP* : 5%
Appearance	Light yellow liquid	Light yellow liquid	Light yellow liquid	Light yellow liquid
Solution viscosity(mPa·s/20°C)	20	30	10	10
pH(10%aq)	4.0 ~ 7.0	4.0 ~ 7.0	6.0 ~ 9.0	6.0 ~ 9.0
Tg	65°C	58°C	70°C	64°C
Acid value(mgKOH/g)	<10	<10	50 ~ 80	40 ~ 70
Feature	Non solvent	Water-resistance	Non solvent High acid value	Water-resistance High acid value

※PnP : Propylene glycol monopropyl ether (CAS No. : 1569-01-3)

Film properties	GX-1486	GX-1487	GX-1488	GX-1489
Water contact angle (Droplet method, Deionized water)	68°	71°	77°	77°
Untreated biaxial stretched PET : 78°				
Transparency (Dry thickness about 3µm) T.T / Hz	T.T 88.2% / Hz 2.0%	T.T 88.2% / Hz 2.0%	T.T 88.5% / Hz 1.9%	T.T 88.6% / Hz 1.8%
Untreated biaxial stretched PET : T.T 87.4% / Hz 2.0%				
Biaxial stretchability	○	○	○	○
Adhesion to PET	○	○	○	○
Water resistance(25°C)	○	○	○ (○*)	○ (○*)
Hot water resistance(80°C)	△	△	△ (○*)	△ (○*)
Solvent resistance	Ethanol	○	○	○ (○*)
	Isopropyl alcohol	○	○	○ (○*)
	Hexane	○	○	○ (○*)
	Toluene	△	×	△ (○*)
	Ethyl acetate	△	×	×
	Methyl ethyl ketone	△	×	×

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

※Using aqueous cross-linking agent (oxazoline type).

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

