

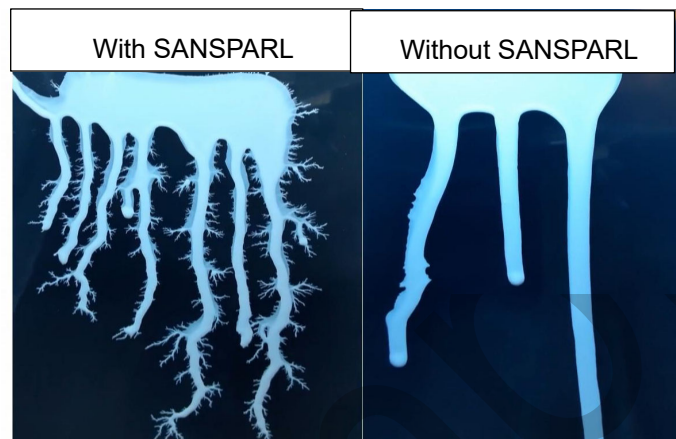
Antistatic Dispersant for inks

## SANSPARL AS-1/AS-2

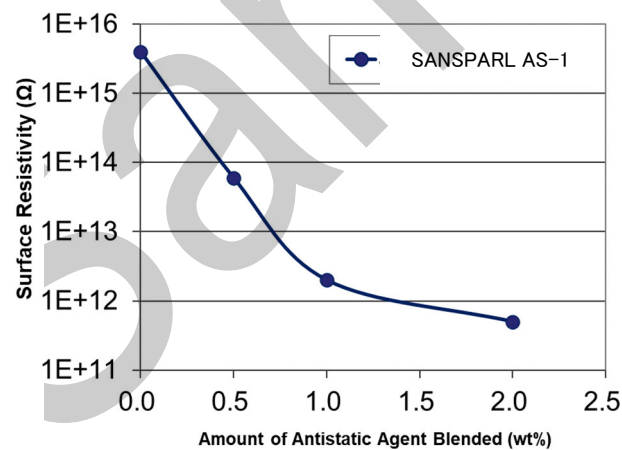
### Product Features

SANSPARL AS-1/AS-2 are dispersants that can be used in water or solvent systems such as toluene. They can disperse pigments such as titanium dioxide and at the same time add antistatic properties to paints and inks.

### ● Ink on Charged PET Film



### ● Antistatic Property Test

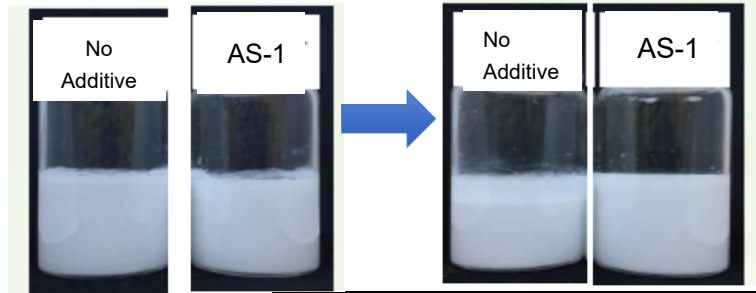


#### <Evaluation method>

A predetermined amount of SANSPARL AS-1 as described in Fig. 1 was blended with commercially available gravure ink (Each proportion of SANSPARL AS-1 to the ink resin content is described in Fig. 1). Dried PP film were coated with ink at 2μm in thickness, and dried. They were then kept at 20°C, 65%R.H. for 24 hours. The surface resistivity of each sample was measured at 20°C, 65%R.H. using an ultra-megohmmeter.

### ●Pigment Dispersibility Test

After 1 day of standing



Ingredient	Ratio(%)
Titanium dioxide	30
Water	70
SANSPARL AS-1	0.5

Dispersion stability	With precipitation	No precipitation
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#### Evaluation Method

Pigment slurry was blended according to the formulation in the table on the right, and then allowed to stand at 25°C.

### ●Applications

- Water-based paints or inks
- Solvent-based paints or inks

### ●Application Methods

Since the product itself is in paste form, it is recommended to dilute it with water, toluene or other solvents according to the additive system before use to adjust it to the appropriate concentration and viscosity.

Recommended dosage of SANSPARL AS-1/AS-2 is 1-3 wt%(as is)/formulation.

	SANSPARL AS-1	SANSPARL AS-2
Toluene	Soluble	Partially soluble
2-Propanol	Partially soluble	Soluble
Ethyl acetate	Partially soluble	Soluble
Water	soluble	soluble

### ●Typical Properties (These data aren't specifications.)

	SANSPARL AS-1	SANSPARL AS-2
Appearance	Pale yellow liquid (paste)	Pale yellow liquid (paste)
Viscosity (mPa-s) (25°C)	550,000	55,000
Active content (%)	97	80
Ionic	Anion	Anion

### ●Packaging

- SANSPARL AS-1 : Net 16kg can, Net 170kg drum
- SANSPARL AS-2 : Net 15kg can, Net 170kg drum