

Polyurethane Dispersion for Paint, Ink, Coating

UCOAT UWS-145

Product Features

UCOAT UWS-145 is a polyurethane dispersion with excellent pigment dispersibility and strong adhesion to various substrates. In addition, it has a small particle size and excellent filterability

●Pigment Dispersing ability

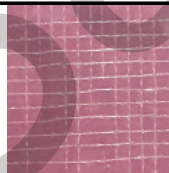

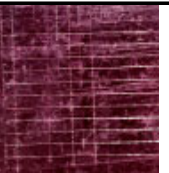
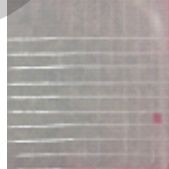

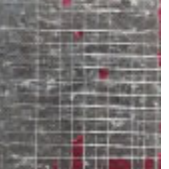
Pigment Dispersing Resin for Paint	Glossiness of Pigment			
	Titanium Oxide (40 wt % *2)	Carbon Black (8 wt % *2)	Cyanine Blue (20 wt % *2)	Fast Red (20 wt % *2)
UCOAT UWS-145	59	62	75	77
Comparison) Conventional product *3	45	30	51	62

*1 Evaluated by measuring glossiness at a 60-degree angle of light source.

*2 PWC (pigment weight concentration) wt% = $\frac{\text{Weight of pigment}}{\text{Weight of dried paint film}} \times 100$

●Adhesion to Various Substrates

By adding crosslinking agents such as carbodiimide, it exhibits strong adhesion to a wide range of substrates.

Sustrate	PET	ABS	SGCC
UWS-145			
Common polyurethane dispersion (polycarbonate type)			

Material	Ratio
polyurethan	30
Carbodiimide (crosslinker)	2
Water	68

<Evaluation method>

A crosslinker was mixed into a polyurethane dispersion colored with a water-based dye, applied with a bar coater to achieve a dry film thickness of 12 μm, dried at 80°C for 5 minutes, dried at 80°C for 5 minutes, dried at 80°C for 5 minutes, dried at 80°C for 5 minutes.

•Appearance and Filterability



UWS-145 has very high transparency and a small particle size, which provides excellent penetration and filterability.

•Applications

Preparation of Pigment Dispersion

Coating (Water-based primer, inks and paint)

•Application Methods

When a pigment dispersion is prepared, UCOAT UWS-145 should be uniformly dispersed in This product is pigment (recommended amount: 5-150 When using UCOAT UWS-145, the pigment should be dispersed uniformly in this product is pigment (recommended amount: 5-150 % wt for this product) using a ball mill, a sand mill, High-Speed Disper, or other equipment.

When using UCOAT UWS-145 as a primer or ink binder, adding a crosslinker provides strong adhesion. For example, carbodiimide or oxazoline, which react with COOH groups, are effective.

•Typical Properties (These data aren't specifications.)

Appearance	pale yellow liquid
Solid content(%)	35
Viscosity(mPa · s)(25°C)	370
pH(of this product)	9.8

•Packaging

Net 18kg can

Net 200kg drum