

General Description

UVECOAT® 9146 is an aliphatic unsaturated acrylic urethane polymer for use as a crosslinker with UVECOAT® resins in UV curable powder coatings. Use of UVECOAT® 9146 in a UV curable powder coating will enhance reactivity and improve surface hardness.

Unsaturated Acrylic Urethane Polymer

Product Specification

	Limits
Appearance	Pale granules
Brookfield Viscosity @ 140 °C, mPa.s	30000-80000
Color, b-value	Max. 15

Other Properties

	Typical value
Glass transition (°C)	Approx. 55
Total unreacted NCO (mg KOH/g)	Max. 0.8

Starting Formulation

Component	Weight (%)
UVECOAT® 9146	9.0
UVECOAT® 3005	81.7
Photoinitiators	2.0
ADDITOL® P 891	7.0
Degassing agent	0.3

Extrusion & Application Conditions

Extrusion	
Extruder	Twin screw
Speed	300 rpm
Torque	>50%
Temperature	80 to 95 °C
Application	
Application	60 micrometer film on Al panel
Spray Gun	Output voltage: 60-70 kV Belt speed: 0.5-5 m/min
IR-UV oven	IR: 32 KW/m ² UV: 80-160 W/cm

Film Properties

Test	Result
Reverse impact on Al (kg cm or in-lb)	80
Reverse impact on steel (kg cm or in-lb)	160

Shelf Life

Under normal storage conditions ($\leq 25^{\circ}\text{C}$), the shelf life of the resin will be 12 months from date of manufacturing. For product older than 12 months, it is recommended to check the acid value and the viscosity every year.

Safety & Environmental Protection

For more information, please refer to the Material Safety Data Sheet.

July 2020 – Supersedes previous versions