Weiss Bonya

Gemini ® Hydrophobic Oleophobic Hardcoat

AnO-166

[Introduction]

AnO-166 is a permanent hydrophobic and oleophobic hardcoating, it is solvent based one-part UV-curing type, non-toxic and eco friendly. Combining interface compact adhesion, it has high transparency and high hardness, damp and heat resistance, acid and alkali resistance, super abrasion durability, it brings water and oil repellency to various plastic substrates like PC、PMMA、PET、ABS, keeping it brightly transparent and abrasion resistant.

[Typical Properties]

Properties	Units	AnO-166
Solid	Wt%	45
Appearance	/	Translucent liquid
Density	g/cm^3	0.9
Solvent	/	Organic solvent
Curing	/	Preheating + UV

[Performance]

Test Item	Test Method	AnO-166
Water/Oil contact angle	10～20μL Water / 10～20μL Hexadecane	115° / 70°
Film color/thickness	Observation / μm	Transparent/ 2~8
Hardness	Pencil hardness tester PMMA/PC/PET	6H/1H/4H
Adhesion	Cross-Cut Tester	Grade 0
Light Transmittance	Light transmittance tester, 380nm~780nm	> 92%
Abrasion Durability	Steel wool #0000, load 1000g/cm2, stroke 4cm, speed 40 rpm,5000rds	> 100°
Solvent Resistance	99.5% alcohol whipping, load 500g/cm2, 100cycle	Good
Acid / Alkali Resistance	30%HCl、30%NaOH drip on the substrate, standing time 24hrs	Good
High Temp/High Humidity	85℃×85%RH×100hrs	Good
Thermal Shock	-40℃×1hr ⇆ 85℃×1hr, 10cycle	Good
Salt Water Spray Test	5% NaCl, temperature 35℃, test time 1000 hrs	Good
Impact Resistance	300N/cm2 front impact and back impact	Good
Heat Resistance	200℃×30mins ⇆ 25℃×15mins, 10cycle	Good

[Applications**]**

Used in plastic sheets, plates, optical lens, films, panels, furniture, packaging materials, building construction / decoration materials, electrical appliance and electronic equipment shells, bathroom and swimming pool facilities, kitchen utensils / sinks, bathroom ware, arts & crafts etc.

[Processing Method]

Dipping, spraying, flowing, rolling. Make sure the coating is uniform and even. The temperature of the surface to be coated should be 5℃~35℃. Keep containers at room temperature prior to use. All surfaces need to be dry and free from wax, grease, and polishes for good adhesion.

Dilution: Dilute by Butyl acetate or PGME Diluting mass ratio: AnO-166:Solvent=1:1

Please clean the tools or spray gun with Butyl acetate or Absolute Ethanol before and after processing to avoid cross contamination. Dipping and flowing please select suitable automatic device. The spray gun is set to low pressure and low volume. One-time spraying can achieve certain effect. Then can proceed the preheating and UV curing process. After UV curing can right away move or transport.

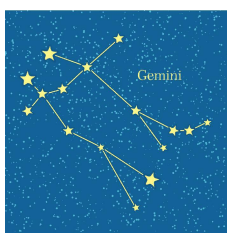
For higher standard requirements, nitrogen can be used to isolate the oxygen during UV curing to reduce the effect of oxygen inhibition, effectively improve the film performance, and increase abrasion durability to more than 8000 rds. The UV cured coating must continue to dry for over 24 hours to reach maximum durability, so suggest testing after 1 day. For best long- term performance avoid imposing excessive mechanical friction or other surface treatments.

Substrate cleaning	Dry surface	Preheating70℃5mins	Coating
Degreasing 、drying	uniform even coating	UV curing	Completed
Can use alcohol、Detergent	Estimated 1L can	UV wavelength: 310~365 nm	
Make sure no residue	cover 100 ㎡ substrate	UV energy: 400~500mJ/cm²	

[Attention]

- During processing, avoid direct contact with the skin, using gloves and safety glass in the test. If skin contacts with products, immediately wipe with a dry cloth and then wash skin with soap and water, If eyes contact with products, immediately flush eyes with plenty of water for at least 5 minutes, and call a physician.
- Keep the container sealed and store between **5~35℃,** well ventilated dark locations, shelf life is 1 year.

[Packaging/Transport] 25L plastic jug. Classified as dangerous in the meaning of transport regulations



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