

Gemini[®] PFPE UV Curable PU Resin Coating Additive

HCPA-620

[Introduction]

UV Curable PU Resin Hard Coating Additive is obtained from perfluoroalkyl-modified acrylate. It is a terrific antifouling coating additive by applying to UV curable acrylic hard coating resins. Treated surface will have fantastic antifouling properties like anti fingerprint, hydrophobic and oleophobic.

[Characteristics]

- It enables lower friction surface
- It provides excellent stain resistant property
- It effectively prevent fingerprints and is easy to clean
- It provides excellent water and oil repellency
- It is suitable for adding into solvent based and waterborne UV curable acrylic hard coating resins

[Typical Properties & Performance]

HCPA-620	Units	Parameter
Solid	Wt%	20
Physical State	/	Light yellow liquid
Density	g/cm ³	1.6~1.8
Water Contact Angle	°	108
Hexadecane Contact Angle	°	60
Magic Ink Pen	/	Beading
Anti Fingerprint	/	Good

[Formulation]**Examples A : Use as additive to solvent based UV curable acrylic hard coating resins****Step 1 : Add HCPA-620 to acrylic hard coating resin with 0.5~2wt% solid content****Step 2 : Proceed mixture hard coating resin with coating equipment****Step 3 : Pre dry****Step 4 : UV cure**

Ingredients	Content (wt%)	Details
BEAMSET 575CB	39.2	Polyurethane acrylate (ARAKAWA CHEMICAL INDUSTRIES,LTD.)
HCPA-620	2	Additive
PGME	58.8	Dilution Solvent

After coating, then dry at 65°C for 5 mins and UV cure (UV dose: 500mJ/cm²)

Examples B : Use as additive to waterborne UV curable resin, emulsifying HCPA-620 with the emulsifier, cationic、 anionic、 nonionic emulsifiers can be used independently or mix together

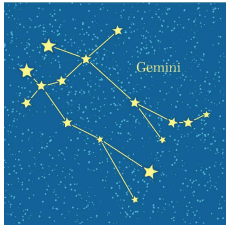
Ingredients	Content (wt%)	Details
Tween 80	1.25	Emulsifier (CRODA INTERNATIONAL PLC)
HCPA-620	8.33	Additive
Distilled water	23.75	
Bayhydrol 2282	208	Waterborne UV cure coating (Bayer)
Irgacure500	38	Initiator

Suggest use ultrasonic or homomixer to well emulsify HCPA-620 with emulsifier, then add to waterborne UV curable resin, after coating, then dry at 80°C for 10 mins and UV cure (UV dose: 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 in cool、 well ventilated locations.

[Packaging/Transport]100g,500g glass bottle. Not classified as dangerous in the meaning of transport regulations



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