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DATE REVISED:

Fine particle water borne dispersion UVA ADEKA NOL UC-3140, UC-3125

UC-3140 and UC-3125 are fine particle water borne dispersions of UVA. They have a good dispersing ability in water borne coating systems and give an excellent durability for various resins without inhibition of gloss. ADEKA NOL UC-3140 and UC-3125 are Alkyl phenol ethoxylate free.

Physical properties

| | Water borne UVA | |
|----------------------------|---|--------------------|
| | ADEKA NOL UC-3140 | ADEKA NOL UC-3125 |
| Structure of UVA | N OH HO N N | |
| | $^{\mathrm{H}_{17}\mathrm{C}_{8}}$ (ADEKA STAB LA-31) | |
| Active ingredient | 40% | 25% |
| Appearance | White milky liquid | White milky liquid |
| Viscosity (mPa·s/25°C) | 2300 | 50 |
| pH (2.5%aq) | 6.0 | 6.0 |
| Average particle size (nm) | 120 | 60 |
| Application | DIY, semi clear coating | Clear coating |

Characteristics

- A good dispersing ability in water borne coating systems and less influence to initial gloss of the coating film.
 [Transparency of Coating Film]
- Fine particle and good stability of the dispersion They can be added by:
- 1) Mixing it with the latex emulsion.
- 2) Mixing it with the finished product (let down process).





Almost transparency

High transparency

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3. Evaluation

Durability test (Q-UV)

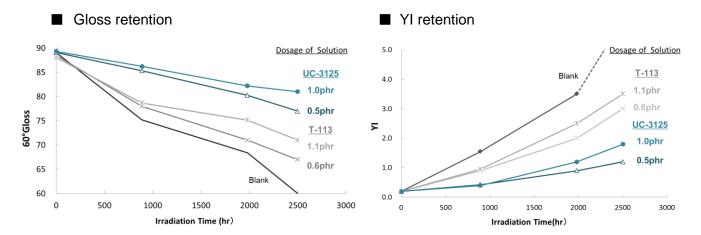
Paint: Acrylic clear paint

Sample: UC-3140, UC-3125, T-113 (Conventional water dispersible UVA)

Method: Each light stabilizer is added to the paint and dispersed for 5 minutes by 2000 rpm. Then, it is coated on a paint board, and is baking at 120 deg C for 30 min after dried r.t. for 10 min. Durability (60° gloss) and Yellow index (YI) were measured after weathering at Q-UV.

Results:

*T-113: Conventional water dispersible UVA.



Ac clear coating, dosage is as solution on the resin of the coating, film=30 μ m Q-UV: JIS K 5600-7-8:1999(ISO/FDIS 11507:1997) BP65°C, WP60°C

Conclusion

UC-3125 shows better gloss with the dosage of 1/2 than common T-113. UC-3125 shows better yellow index than common T-113.

