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**Daikin Introduces New Fluorine Antifouling Additive for UV Cure Coatings “OPTOOL DAC”
Delivering Excellent Easy-Clean Property for Dirt and Fingerprints on Display Panel**

Daikin Industries, Ltd. has developed “OPTOOL DAC”, a breakthrough fluorine antifouling additive for UV cure coatings, which delivers excellent antifouling (anti-fingerprint) properties and low friction, in addition to its water and oil repellency as fluorine’s typical characteristics. Daikin will start selling this product beginning in May.

Adding a small amount of “OPTOOL DAC” to a UV cure acrylic coating system, which is widely used for plastic and metal substrates, provides fluorine’s original characteristics such as antifouling, anti-fingerprints, superior water and oil repellency, low friction and easy-clean feature onto hard coat surfaces. Further more, its strong chemical bond with hard coating system ensures long-lasting superior antifouling characteristics. Since the product meets the need for antifouling, anti-fingerprints and easy-clean properties required on substrate surfaces (for example, liquid crystal displays, plasma displays, touch panels, casing for mobile devices such as cellular phones and portable game consoles, optical disc surface and optical lenses) where UV cure hard coating system is often used, Daikin expects demands in such applications to be high.

Advantages

UV cure acrylic coatings added OPTOOL DAC offers the following benefits:

(1) Outstanding antifouling properties

Effective easy-clean properties for fingerprints that conventional fluorine or silicone system antifouling agents have not previously offered.

(2) Excellent water and oil repellency

Due to its better water and oil repellency, dirt is repelled and easily wiped off.

(3) Exceptional low friction properties

It meets the need for low friction surfaces.

(4) Superior antifouling durability

The strong chemical bond with hard coating system ensures long-lasting superior antifouling characteristics.

(5) No degradation of optical properties

There is little affect on the optical properties, such as the reflective index, since the amount added is very small.

Recommended usage

Add 0.5-5.0 wt% OPTOOL DAC to your UV cure acrylic coating system.

No need to change your existing coating process when adding OPTOOL DAC.

Application examples

OPTOOL DAC is suitable for the UV coatings of following applications;

- Hard coating system for displays in audiovisual devices, office automation equipment, ATMs, LCD TVs, plasma TVs, etc.
- Hard coating system for cellular phones, portable game consoles, notebook PCs and other portable devices and household appliances.
- Hard coating system for optical media (Blu-ray, HD-DVD, etc.)
- Hard coating system for optical lenses.

Reference: UV cure acrylic coating system

It is common to apply hard coating system onto surfaces like plastics that do not have enough hardness and sensitive for scratches. Acrylic systems are widely used because it has variety of grades depending on requirements in hardness, curing speed and adhesive strength, specifically a "UV cure" acrylic system that cures using UV-ray, in various applications as it allows low temperature and quick curing for better productivity and economy.



[OPTOOL DAC]

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OPTOOL DAC antifouling properties

	Fingerprint test		Solvent based marker test	
	Before wiping	After wiping	Before wiping	After wiping
Hard-coat with DAC				
Hard-coat without DAC				

[Antifouling comparison]

Contact information for inquiries regarding OPTOOL DAC

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Inquire regarding OPTOOL DAC

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