

Under
Development

High refractive index material

Nanoparticle Dispersion [NanoRefract™]



OVERVIEW

Nanoparticle dispersions are high refractive index materials developed using TODA KOGYO's wet synthesis technology. They are dispersions of titanium oxide compound nanoparticles, distinct from ZrO_2 and TiO_2 , making them ideal for increasing the refractive index of nanoimprint resins and optical adhesives. They also offer high transmittance and excellent light resistance for advanced optical component resin materials.

FEATURES

High refractive index

They enable the formation of high refractive index coatings for optical films and lenses.

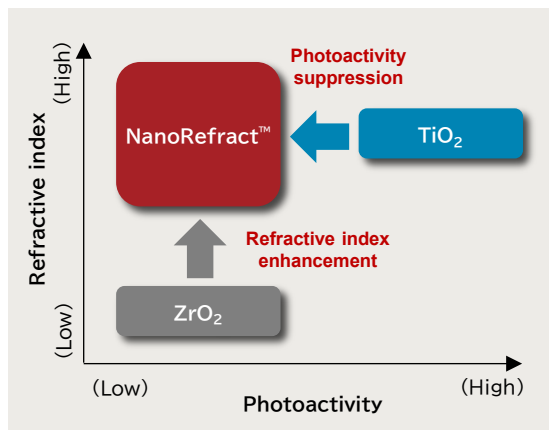
High transmittance

They enable the formation of low haze coatings, making it perfectly suited for high transmittance applications.

High light resistance

They have low photoactivity, allowing the production of optical components with excellent light resistance.

CHARACTERISTICS



【Characteristics of NanoRefract™】

【Typical properties of NanoRefract™】

Filler type	Titanium oxide compound
Average dispersed particle size [Filler particle size]	$\geq 25\text{nm}$ [20nm]
Filler refractive index (Calculated value)	2.20
Dispersion solvent	PGMEA (Propylene glycol monomethyl ether acetate)
Concentration	30wt%



【Appearance of glass after coating】

APPLICATIONS

- AR/VR glasses
- Next generation displays
- Camera lenses

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