

“Contribution for autonomous car”

There seem a lot of challenging matters to develop autonomous cars with various technologies. We introduced our product named LG1000 which had higher transparency in IR wavelength for LiDAR device on the previous e-mail newsletter. To taking this opportunity, we would like to introduce our product which can reduce malfunction by halation in the sensor for recognizing objects with visible light. And we would like to deliver solutions to customers in terms of glass melting, precise processing, coating, and so on.

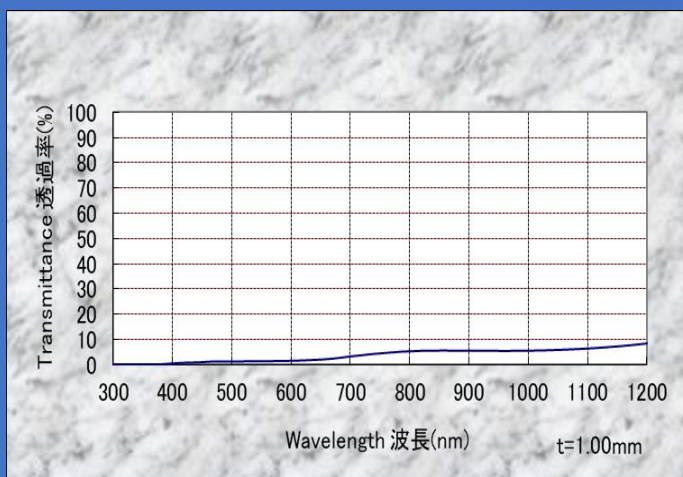


Goods for markets 【Light reduction filter】

Quality	Cost	Delivery
<ul style="list-style-type: none"> • Reduce excess visible lights • Better thermal property 	<ul style="list-style-type: none"> • Own melting facilities, own forming process • Transmittance can be controlled with glass composition, so that coating cost should be reduced. 	<ul style="list-style-type: none"> • Own melting facilities, own forming process • Small lots with shortened terms • Flexibility on delivery term

【ND13-4】

Application : Optical sensor, Camera filter



Product name	ND13-4
Refractive index (nD)	1.503
Expansion coefficient α [10 ⁻⁷ /°C]	69.2 (100/300)
Transition point Tg [°C]	482
Deformation point At[°C]	553
Softening point Ts [°C]	—
Knoop hardness Hk	— (100g/15sec)
Density [g/cm ³]	2.46
60°C/90% RH (non-coated)	—
Optical property (non-coated)	1.0mm thickness
400nm	0.4%
800nm	1.2%
1000nm	1.4%
1200nm	3.2%
Half maximum (50%)	—
Composition type	Silicate
RoHS regulated substances (Pb,Hg,Cr(VI),Cd)	Not contained
Halogenated substances	Fluorine contained