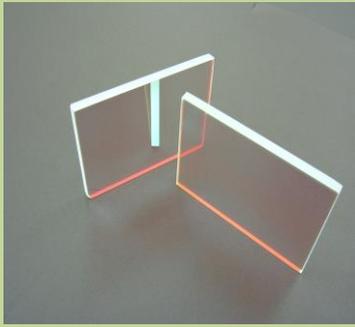


Our Products

Optical Thin Film



[Dielectric Multi-Layer]

High transparent materials of dielectric(metal oxide, etc.) are used for optical thin films. Dielectric Multi-Layer exhibits varied optical performance.

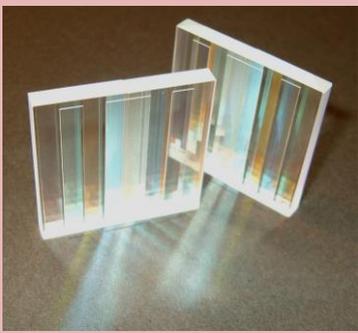
[Film forming method]

Our optical thin films are made by vacuum evaporation coating method. Coated material evaporates by heat in the chamber which is kept high vacuum, then the vapor is deposited on the plate. Also we are able to produce thin films with Ion-Assisted deposition which improve film density.

[Application]

DSC(Digital Still Camera), LCD-projector, Optical communication

Polarization Converting System



[Polarization]

Polarization is the light(electromagnetic wave) whose oscillation is uniformed in one direction. Polarization are able to exhibit varied optical performance by combination with optical devices. PBS(Polarizing Beam Splitter) are able to separate to the specified polarization from un-polarization.

[PCS(Polarization Converting System)]

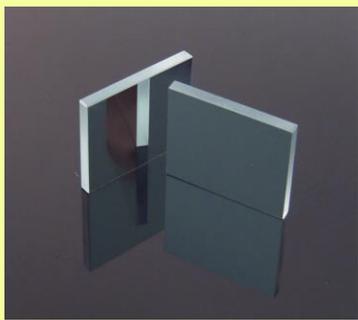
PCS is able to be improved efficiency of utilization by converting to available polarization from unavailable polarization.

[Application]

LCD-projector: LCD devices are able to use only specified polarization, and PCS is used for LCD-projector to increase brightness.

DSC(Digital Still Camera), LCD-projector, Optical communication

AL-High Reflection



[AL-High Reflection Coating]

Our AL-High Reflection Coating are hybrid mirror which is added dielectric layers on AL layer. This enable to realize high reflection, durability and low cost.

[Variation of AL-High Reflection Coat]

AL-HR: two layers of dielectric on AL layer

AL-HHR: four layers of dielectric on AL layer (Reflectance>AL-HR)

AL-HHHR: six layers of dielectric on AL layer (Reflectance>AL-HHR)

[Application]

LCD-projector, DSC(Digital Still Camera)

Metal Thin Film Coat



We can produce metal thin films whose thickness is precisely controlled by Vacuum evaporation coating method.

[Typical metal]

AL, Cr, Au, Ag, Cu, Inconel, Nichrome, Alumel, Chromel

[Products]

Reflection mirror, Half mirror

[Application]

This is used for a wide range from precision optical devices to ornaments, we propose the most suitable material according to requested optical characteristic, durability and cost.

Half Mirror



[Variation of half mirror]

Half mirror(HM) coating is roughly divided into dielectric one and metal one. Metal HM is superior in terms of cost, and dielectric HM is superior in terms of light efficiency of utilization.

[Our unique HM]

Hybrid-HM:

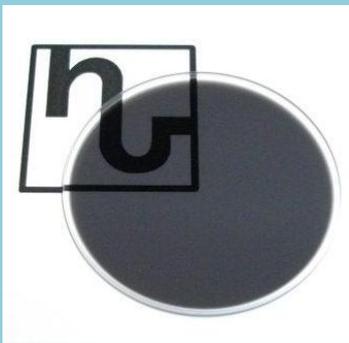
Hybrid-HM is composed of dielectric layers and metal layer, and it is superior in terms of cost and light efficiency of utilization.

Gradient-HM:

Gradient-HM has different transmission by place.

Special Magic Mirror: Special Magic Mirror has different reflection by incident side and if it is placed between two rooms of the same brightness, you can see the opposite side through the mirror from low reflection side.

Neutral Density Filter



[ND Filter]

ND filter can reduce the light of specific wavelength band. It is divided into two type by absorbing glass and absorbing coating. We can produce absorbing coating on the plate

[Our characteristic]

We have highly durable ND filter whose transmission doesn't change through the heat resistance test as 200°C, 200Hours.

Water Repellent



[Water repellent coat]

Our water repellent coating by vacuum evaporation method has high durability.

Also we are able to deposit the coating on plastic without heating

Contact angle: 110°

We are able to provide water repellent AR coating which has both characteristics of anti-reflection and water repellent.

Glass Processing



[Our various technologies for glass processing]

1. Cutting : Large glass plates are cut into various size accurately with our cutting machines.
2. Grinding : End faces of cut plates are grinded accurately with our machines automatically
3. Chamfering : Edges of cut plates are chamfered with our machines automatically
4. Polishing : Surfaces of plates are polished accurately with our double-side polishing machines.
5. Printing : Patterns are printed on plates accurately by our screen printing machines
6. Bonding : Plates and prisms are bonded accurately with suitable optical bond

By combining these multiple technologies ,we can provide various optical parts on our customer's requests.