

**NIR Cut  
75% or more\***

**Visible light transmittance  
80% or more (@450nm)\***

\* Thermal barrier film

**Applications  
Automotive**  
Head up Display Units

Thermal barrier film

## MUAH6

## IRC102 (Under development)

Reducing double images film

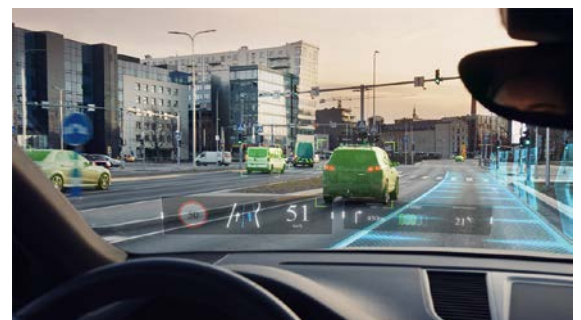
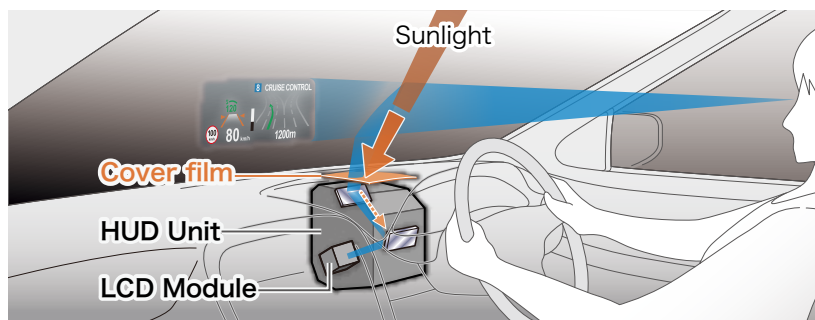
## GSP Series (Under development)

### Functional films for HUD cover

Reduces temperature rising of the display due to direct sunlight entering the HUD unit. Reduces visibility deterioration caused by double images.

#### Thermal barrier film

Protect HUD units from direct sunlight. To apply, simply replace with the current cover.

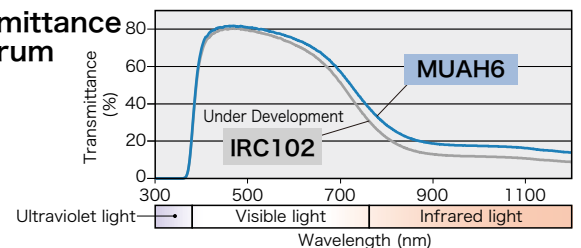


#### Sunlight shielding performance

Material	Sunlight IN	Sunlight OUT	Sunlight shielding performance
<b>MUAH6 (Thermal barrier films)</b>	100	48	52
Absorption type polarizer		61	39
Cold mirror		51	49

The above data are typical values and not guaranteed values.

#### Transmittance Spectrum



#### General properties

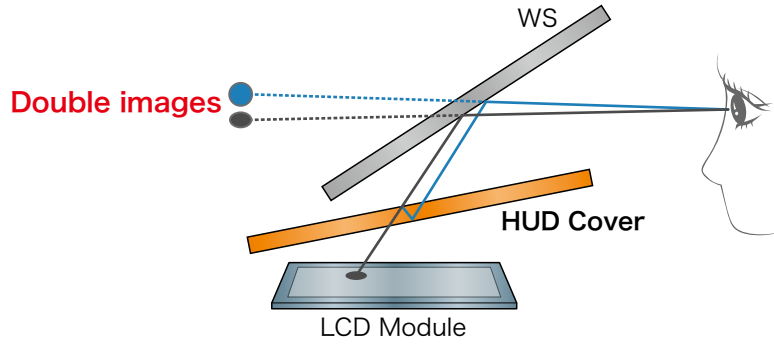
Item	Unit	Thermal barrier films	
		MUAH6	IRC102 (Under development)
Layer structure	—	Thermal barrier HC layer Substrate PMMA/PC 375μm	Thermal barrier HC layer Substrate PMMA/PC 375μm
Total light transmittance	%	79.0	77.2
NIR light transmittance (at 1000 nm)	%	22.5	9.9
Haze	%	2.0	2.2
Pencil hardness (750g load)	—	3-4H	3-4H
Flammability (FMVSS No.302)	—	Pass	Pass

The above data are typical values and not guaranteed values. Specifications are subject to change without notice.

Please refer to the reverse side for the product introduction of the Reducing double images film GSP Series.

## ■ Reducing double images film

Reduces double images caused by HUD dust covers.



Double images



Double images reduction !



## General properties

Item	Unit	Reducing double images film GSP Series (Under development)
Layer structure	—	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px; background-color: #ffffcc;">Reducing double images layer</div> <div style="border: 1px solid black; padding: 5px; background-color: #cccccc;">Substrate</div>
Total light transmittance	%	93.0
Haze	%	0.2
Flammability (FMVSS No.302)	—	Pass

The above data are typical values and not guaranteed values.  
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**Under development**

**Thermal barrier  
& Reducing double images film**

### Combined functionality of both thermal barrier and reducing double images

- Prevents temperature rise of the display unit due to direct sunlight.
- Reduces double images in projected images.