



NISSIN

PRECISION MACHINES Co., Ltd.

日進精機株式会社

REFLEX REFLECTOR **PARTS & ELECTROFORMS**

- Features
- Usage examples
- Specifications





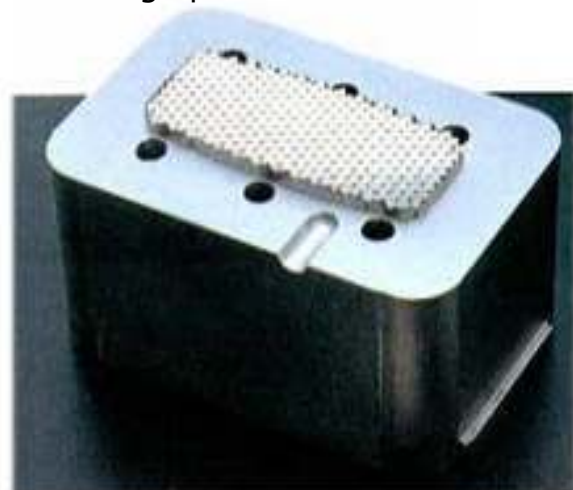
Our strength

- A Pioneer of Reflex Reflector mold
The 1st developer of Reflex Reflector mold in Japan
- 60 years of accumulated experience & knowledges
- Tons of applications we have made globally are:
 - Reflex Reflector for Photoelectric Sensor
 - Reflex Reflector for Bicycle
 - Reflex Reflector for Automobile
 - Reflex Reflector for Road Stud
 - Reflex Reflector for Delineator
 - Warning Triangle
 - Electroform for Insert core

3D curved Electroform insert core

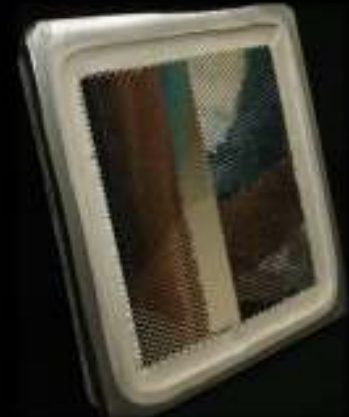
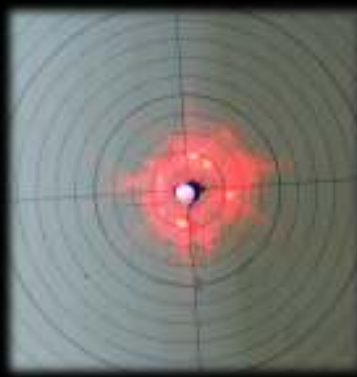


High precision Reflector Mold

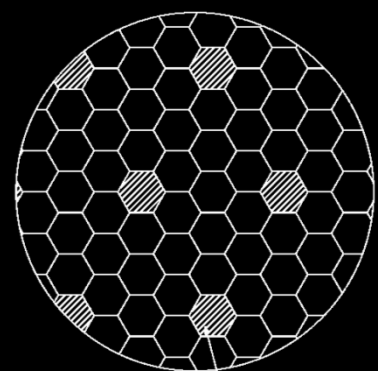
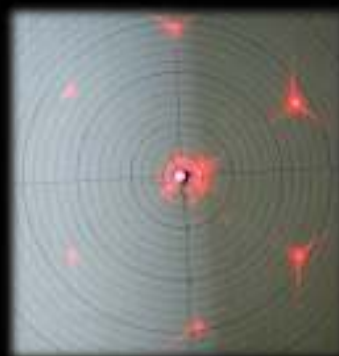


Standard Electroform

100x100mm (With and no division parting line)



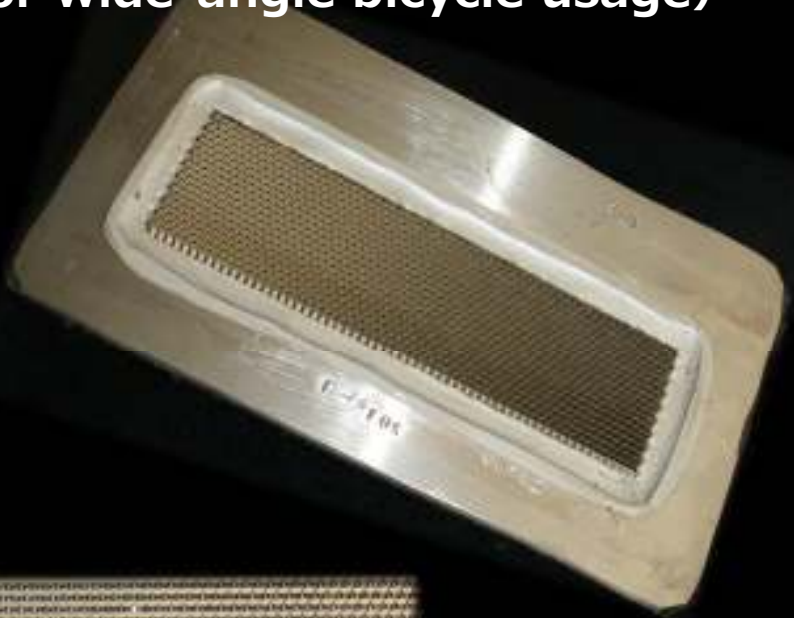
100x100mm EC type
(With and without division parting line)



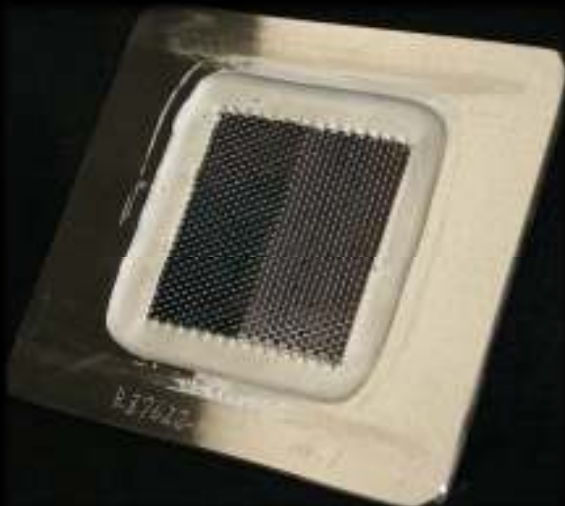
1.5° TARGET PIN

Standard Electroform

20° slanted type (For wide-angle bicycle usage)



Z type (For small area bicycle usage, with division parting line)



Specifications of Standard Electroforms

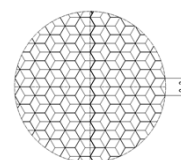
Name	Model No.	Effective Area Dimensions	Thickness	Material	Approx. Weight (kg)	Luminosity (As per Nissin's internal testing criteria)
100x100 Standard Type No division parting line	Z5788	100x100mm	12mm or more	Ni	2.5Kg	8cd/10.76Lx/sq. inch @ 0.2° observation angle
100x100 Standard Type With division parting line	Z5788BN					
100x100 EC Type No division parting line	Z5788-EC					
100x100 EC Type With division parting line	Z5788-ECBN					
20° Slanted Type	Z6502	140x40mm			1.8Kg	
Z Type With division parting line	RZ7622-K	60x60mm			1.0Kg	40cd/10.76Lx/sq. inch @0.2° observation angle

One point lesson:

In general, 100x100 Standard Type Electroform is good for **Automobile, Bicycle, Road Stud, Deleanator and Warning Triangle** applications with relatively larger area.

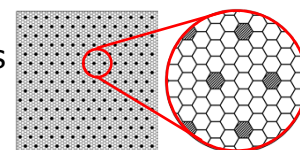
What is division parting line?

Corner cube array is bilateral (left-right) symmetry at center line. In other word, left part and right part is symmetry in Y direction.



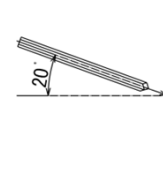
What is EC type?

Observation angle 1.5° is reinforced by mixing different types of projection portions.



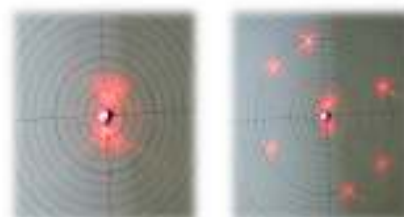
What is 20° slanted type?

Corner cube is slanted at 20° and the incidence angle of 30~50° is reinforced. This is good for wide angle application such as Bicycle.



What is Z type?

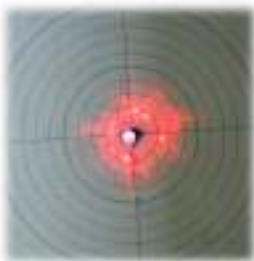
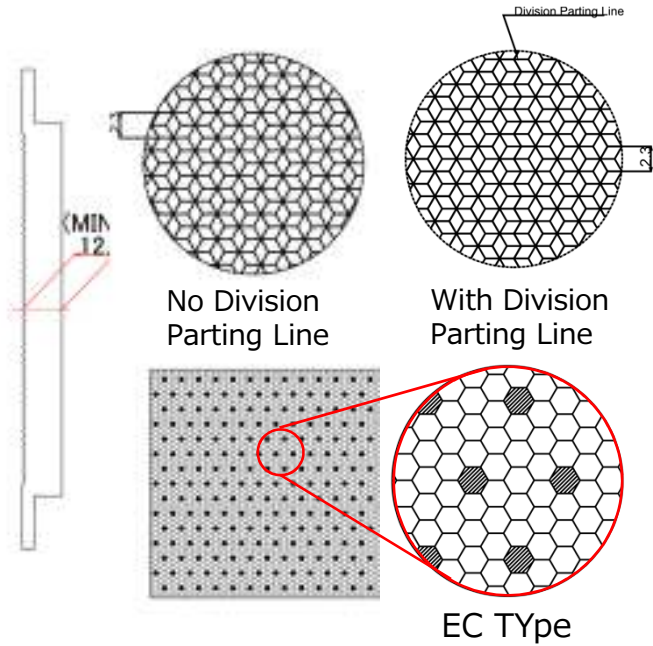
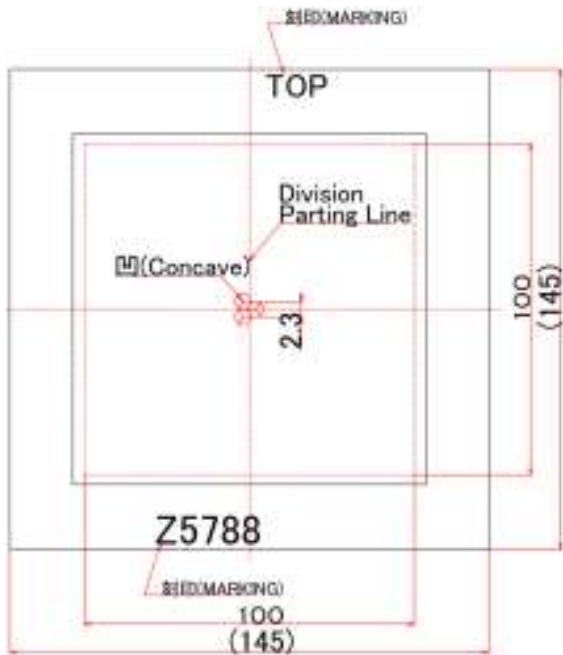
This can attain JIS D9452:2018 safety regulation compliant with a relatively Small (say, 750 mm²) of Bicycle reflector part.



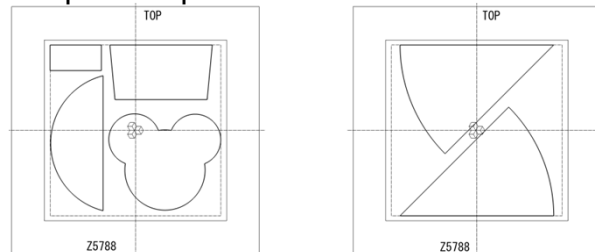
Specification subject to change without notice for improvement

Electroform details

100x100 Standard Electroform



Example of optimized cut of Electroform core

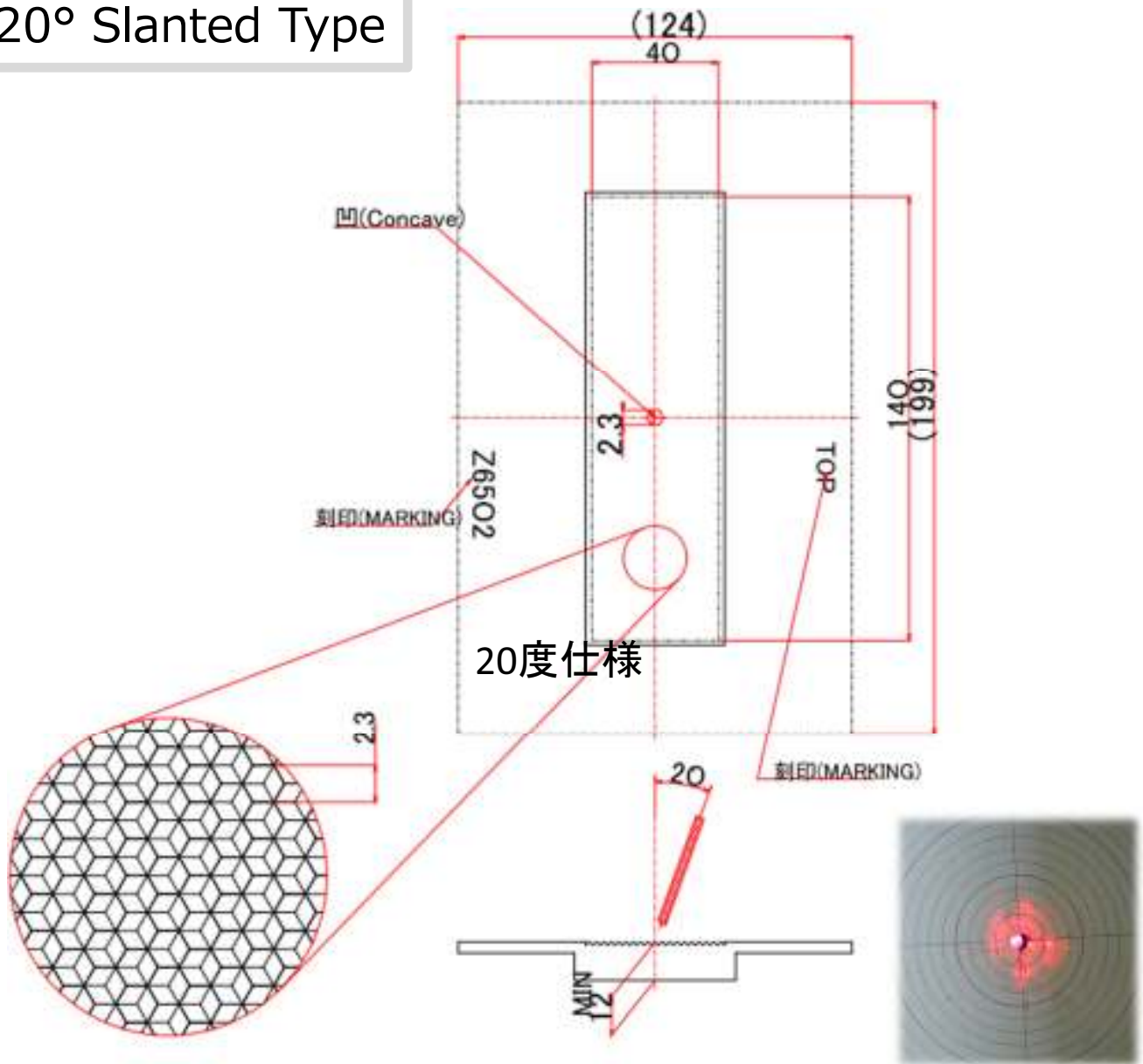


Option	No division Parting Line	With division Parting Line	EC Type No division Parting Line	EC Type With division Parting Line
Model No.	Z5788	Z5788BN	Z5788-EC	Z5788-ECBN
Material	Ni			
Luminosity	8cd/10.76Lx/Square Inch (@ 0.2° Observation Angle)			
Effective Area	100 x 100 mm			
Weight	Approx. 2.5 kg			
Typical application	For Automobile, Bicycle, Road Stud, Warning Triangle, etc.			
	What is division parting line? Corner cube array is bilateral (left-right) symmetry at center line. In other word, left part and right part is symmetry in Y direction.			
	What is EC type? Observation angle 1.5° is reinforced.			

Specification subject to change without notice for improvement

Electroform details

20° Slanted Type

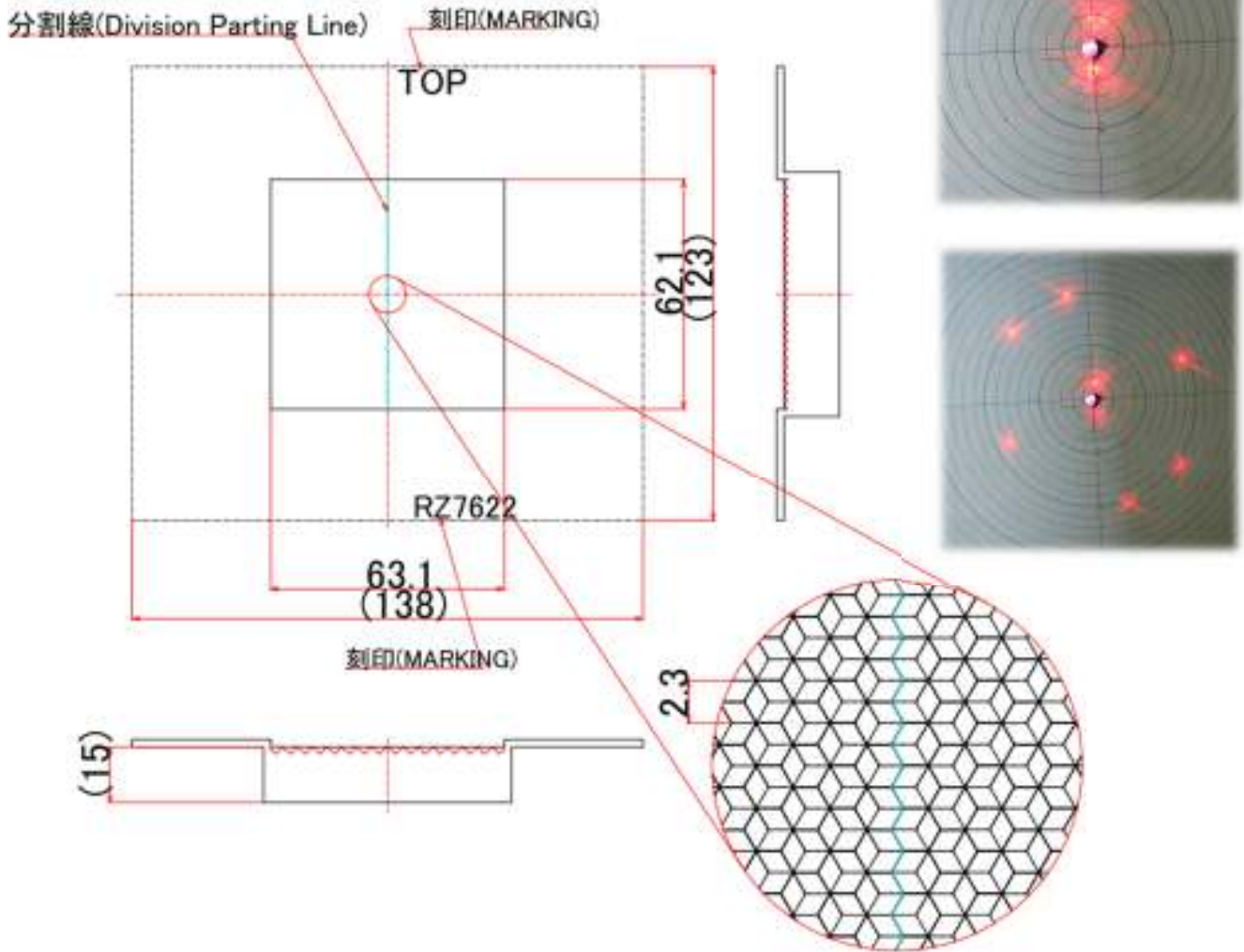


Model No.	Z6502
Material	Ni
Luminosity	8cd/10.76Lx/Square Inch (@ 0.2° Observation Angle)
Effective Area	140 x 40 mm
Weight	Approx. 1.8 kg
Typical application	For wide angle type Bicycle reflector, etc. Corner cube is slanted at 20° and the incidence angle of 30~50° is reinforced.

Specification subject to change without notice for improvement

Electroform details

Z type, with division parting line

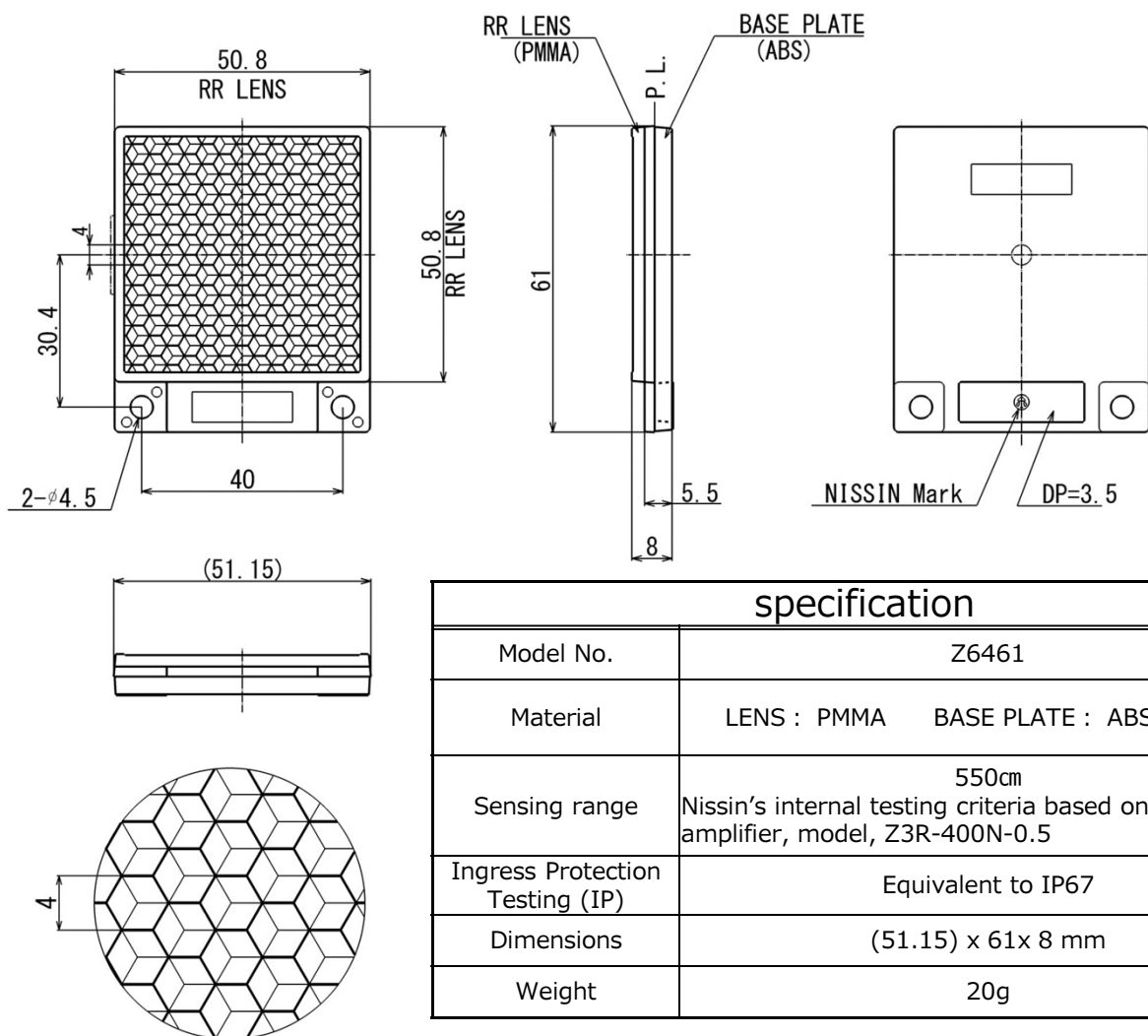


Model No.	RZ7622-K
Material	Ni
Luminosity	40cd/10.76Lx/Square Inch (@ 0.2°Observation Angle)
Effective Area	60 x 60 mm
Weight	Approx. 1.0 kg
Typical application	For Bicycle reflector with relatively small reflection area, etc. Z type can attain JIS D9452:2018 safety regulation compliant with small (say, 750 mm ²) of Bicycle reflector part.

Specification subject to change without notice for improvement

Usage example 1

Reflex reflector for Photoelectric Sensor



specification	
Model No.	Z6461
Material	LENS : PMMA BASE PLATE : ABS(BLACK)
Sensing range	550cm Nissin's internal testing criteria based on OPTEX FA amplifier, model, Z3R-400N-0.5
Ingress Protection Testing (IP)	Equivalent to IP67
Dimensions	(51.15) x 61x 8 mm
Weight	20g

Specification subject to change without notice for improvement

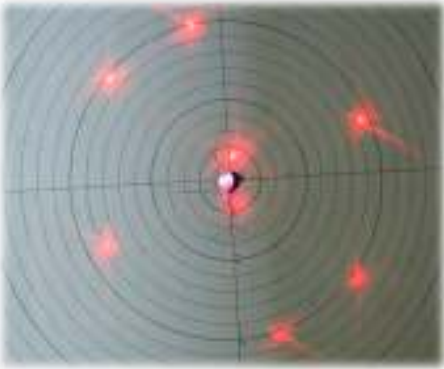
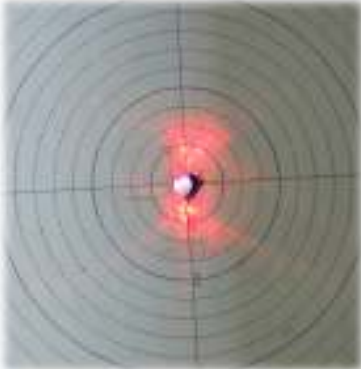
Usage example 2

Reflex reflector for Bicycle



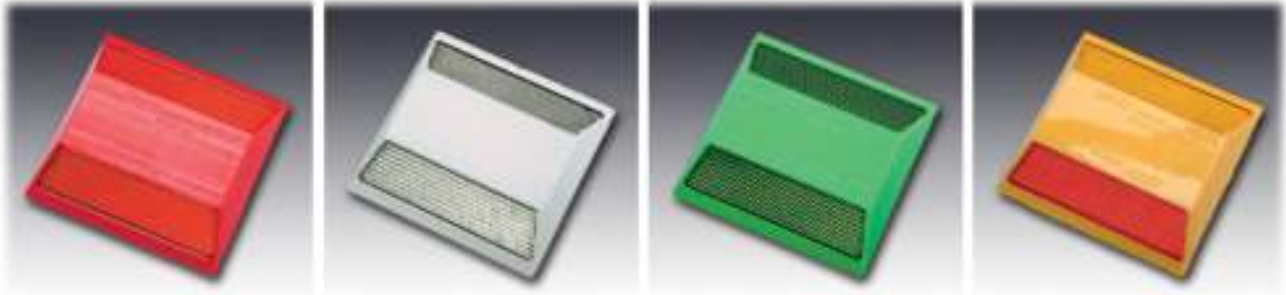
When you ride a bicycle in the dark, the law requires reflectors; and the law is quite specific as to what reflectors you use.

- JIS D9452:2018 compliance example:**
- ① Front : Transparent
 - ② Side : Transparent or Amber
 - ③ Rear : Red
 - ④ Pedal : Amber



Usage example 3

Reflex reflector for Road Stud, Delineator and Warning Triangle



Contact:



Nissin Precision Machines Co., Ltd.

Tokyo Head Office, Sales Dept.

2-29-21 Tamagawa, Ota-ku

Tokyo 146-0095, Japan

☎ +81-3-3758-1901 +81-3-3758-1969

gn_info@nissin-precision.com

www.nissin-precision.com

Please provide the following information when you contact NISSIN for your inquiry:

- ① Your contact,
- ② Your business details,
- ③ Applications (Photoelectric sensor, Automobile, Bicycle, Road Stud, Delineator, Warning Triangle, etc.) ,
- ④ Business requirements,
 - 1)Supply quantity of Reflex Reflector Parts
 - 2)Design for Reflex Reflector Insert core
 - 3)Type of Electroform
 - 4)Technical requirements with part drawing, etc.