Detecting flaws on flat surfaces with a single shot

OneShotBRDF solves these issues !

Current issues

- Difficult-to-detect microdefects
- Image processing optimization required to detect some types of defects
- Difficulty in passing the visual inspection expertise of skilled labor on to younger generations
- Unreliable organoleptic inspection
- Time-consuming inspection and resulting increase in costs

Benefits provided by OneShotBRDF

- Capable of identifying microdefects that have previously been difficult to detect
- Shows the base material and flaws / defects in different colors without the need for post-image processing
  - No need for skilled labor for inspection
  - Quality stabilization
  - Reduction in inspection time
- Highly compatible with AI-based post-processing

Application areas of the Surface Flaw Detection (SFD) Scope

1 Inspection of glossy objects
Capable of clearly detecting scratches and other microdefects, being free from reflections of light sources

2 Inspection of flat objects
Specifically designed for the inspection of sheet-like objects and flat machined surfaces

3 Detailed inspection
Special optical system capable of detecting smaller scratches and other defects than is possible with typical machine vision inspection systems

4 Inspection by skilled labor
Eliminates the need for skilled labor as microdefects are identified in colors without the need for image processing

Ideal for the inspection of flat glossy objects such as those listed below

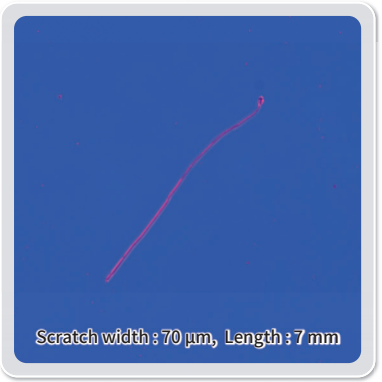
1 Mechanical parts
- Metal and plastic parts
- Photo-etched parts
- Specular surfaces

2 Optical parts
- Optical glass materials
- Optical filters
- Prisms
- Mirrors

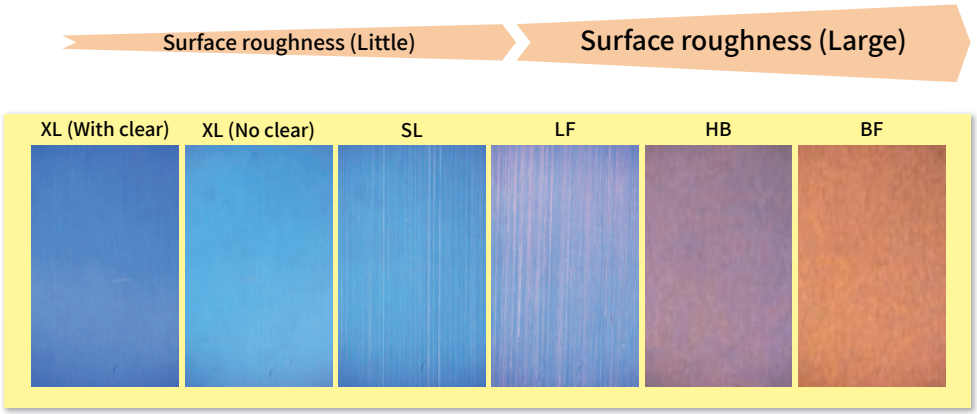
3 Painted surfaces
- painting parts

4 Printed matter
- Book covers
- Decorative book boxes

<Ex.> Scratches on glass

Object	Images taken with a general optical system (ring illumination)	Image taken by SFD scope
		

<Ex.> "Color change" based on aluminum surface sample



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