



**RHOPOINT**  
**AESTHETIX**

The ultimate  
surface appearance  
measurement solution

# Aesthetix Specifications

## Modules

Surface Brilliance		
Index	Description	Unit
60°	60° Gloss	GU
60° V	60° Visual Gloss	p-GU
Rspec	Specular Peak Reflectance	GU
S	Sharpness	%
MC Haze	Michelson Haze	HU
VC	Visual Contrast	%
LogH	LogHaze	logHU
LogH C	LogHaze compensated	logHU
VisH-Out	Visual Haze Outdoors	VHU
VisH-In	Visual Haze Indoors	VHU
Waviness	Waviness	WU
RIQ	Reflected Image Quality	%
DOI	Distinctness of image	%
PCI	Powder Coating Index	
Tension	Tension	
R	Red Channel Surface Color RGB	
G	Green Channel Surface Color RGB	
B	Blue Channel Surface Color RGB	

Crosscut		
Index	Description	Unit
60°	60° Gloss	GU
Undamaged	Undamaged Area	%
ASTM Class	Damage Rating ASTM D3359	
ISO Class	Damage Rating ISO 2409	
R	Red Channel Surface Color RGB	
G	Green Channel Surface Color RGB	
B	Blue Channel Surface Color RGB	

Effect Finish		
Index	Description	Unit
60°	60° Gloss	GU
Waviness	Waviness	WU
Graininess	Graininess	
SpR (10°)	Sparkle Red 10°	
SpG (10°)	Sparkle Green 10°	
SpB (10°)	Sparkle Blue 10°	
SpR (45°)	Sparkle Red 45°	
SpG (45°)	Sparkle Green 45°	
SpB (45°)	Sparkle Blue 45°	
Density (10°)	Sparkle Density 10°	
Area (10°)	Sparkle Area 10°	
Brightness(10°)	Sparkle Brightness 10°	
Visibility (10°)	Sparkle Visibility 10°	
Density (45°)	Sparkle Density 45°	
Area (45°)	Sparkle Area 45°	
Brightness (45°)	Sparkle Brightness 45°	
Visibility (45°)	Sparkle Visibility 45°	
R	Red Channel Surface Color RGB	
G	Green Channel Surface Color RGB	
B	Blue Channel Surface Color RGB	



# Modules

Texture		
Index	Description	Unit
60°	60° Gloss	GU
Sa Rough	Areal Roughness	p-µm
Ca	Cell altitude	p-µm
Cn	Cell number	
Cs	Cell size	
CsMin	Cell size Minimum	
CsMax	Cell size Maximum	
CsDev	Cell Size deviation	
Hs	Hill size	
F	Fill factor	
R	Surface Reflectivity	
RC	Surface Reflectivity Contrast	
RV	Surface Reflectivity Valleys	
RH	Surface Reflectivity Hills	
Fsep	Feature Separation	
Fsel	Feature Selection	
FThld	Feature Threshold	
R	Red Channel Surface Color RGB	
G	Green Channel Surface Color RGB	
B	Blue Channel Surface Color RGB	

Linear Scratch		
Index	Description	Unit
60°	60° Gloss	GU
Min Length	Minimum Detection Length	µm
Sensitivity	Sensitivity of Detection	
Length	Scratch Length Total Average	µm
Length V	Scratch Length Avg. Vertical	µm
Length H	Scratch Length Avg. Horizontal	µm
Area	Total Scratched Area	µm <sup>2</sup>
Area V	Scratched Area Vertical	µm <sup>2</sup>
Area H	Scratched Area Horizontal	µm <sup>2</sup>
Count	Total Scratches	
Count V	Scratches Vertical	
Count H	Scratches Horizontal	
Visibility	Scratch Visibility Average	
Visibility V	Scratch Visibility Vertical	
Visibility H	Scratch Visibility Horizontal	
R	Red Channel Surface Color RGB	
G	Green Channel Surface Color RGB	
B	Blue Channel Surface Color RGB	

Polishing Quality		
Index	Description	Unit
60°	60° Gloss	GU
S	Sharpness	%
MC Haze	Michelson Haze	HU
LogH	LogHaze	logHU
LogH C	LogHaze compensated	logHU
VisH-Out	Visual Haze Outdoors	VHU
DOI	Distinctness of image	%
Min Length	Minimum Detection Length	µm
Sensitivity	Sensitivity of Detection	
Mask Radius	10° Spot covering mask area	Pixel
Length	Scratch Length Total Average	µm
Length V	Scratch Length Avg Vertical	µm
Length H	Scratch Length Avg. Horizontal	µm
Area	Total Scratched Area	µm <sup>2</sup>
Area V	Scratched Area Vertical	µm <sup>2</sup>
Area H	Scratched Area Horizontal	µm <sup>2</sup>
Count	Total Scratches	
Count V	Scratches Vertical	
Count H	Scratches Horizontal	
Visibility	Scratch Visibility Average	
Visibility V	Scratch Visibility Vertical	
Visibility H	Scratch Visibility Horizontal	
R	Red Channel Surface Color RGB	
G	Green Channel Surface Color RGB	
B	Blue Channel Surface Color RGB	



## Hardware and Software

### Optical Geometry

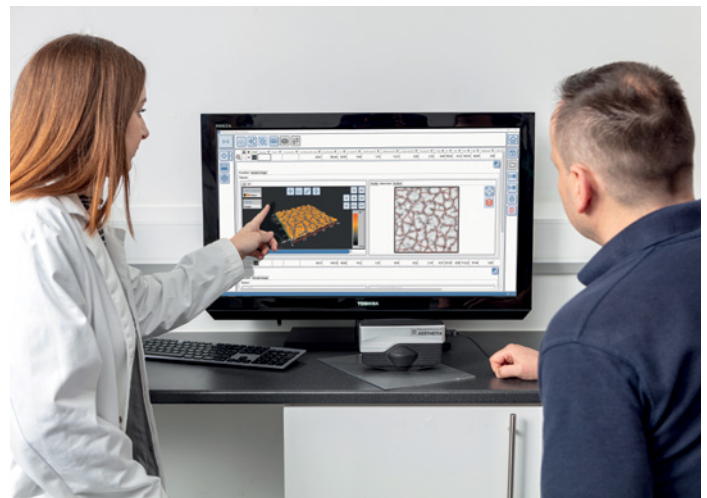
Geometry	60° Gloss; 10°x:0°; 15° linelight (20mm); 45°c:0°, 60°:0°
FOV [mm]	18x24
Analyzed Area [mm]	Gloss: 18x9mm or 4x2mm (standard), optional sizes available <ul style="list-style-type: none"> <li>• Effect Finish: 10x10mm</li> <li>• Texture: 15x15mm maximum (variable)</li> <li>• Polishing quality : 10x10mm</li> </ul>
Resolution (surface)	9.2µm/pixel (109pixel/mm)

### Hardware

Size (H x L x W) [mm]	104 x 177 x 83
Weight [g]	802
Power	USB 3.0 Port on controlling PC/Tablet (7.2W max, 2.4W min)
Control	Software triggered measurement or read button on instrument
Interface	USB 3.0 USB-C or Thunderbolt

### Software Requirements

Processor	x64 (x86 and ARM are not supported)
Memory	16 GB
OS	Windows 11



## Technical Specifications (alphabetical)

Index	Unit	Typical Range	Repeatability SD	Reproducibility SD
Ca	P- $\mu$ m	0-1000	0.10	1.00
Cs	mm <sup>2</sup>	0-5	0.01	0.05
DOI/RIQ	%	0-100	0.20	0.50
Gloss 60°	GU	0-100	0.10	0.20
Gloss 60°	GU	100-1000	1.00	2.00
Graininess	arbitrary	0-1	0.10	0.20
Hs	mm <sup>2</sup>	0-3	0.01	0.05
LogH	LogHU	0-500	2.50	5.00
MC Haze	HU	0-150	0.20	0.50
R	arbitrary	0-2000	0.50	1.00
RC	%	0-100	0.05	0.20
Rspec	%	0-100	0.10	0.20
Rspec	%	100-1000	1.00	2.00
Sa perceived Rough	P- $\mu$ m	0-1000	0.05	1.00
Sharpness	%	0-100	1.00	2.00
Sparkle 10° Blue	arbitrary	0-255	1.00	5.00
Sparkle 10° Green	arbitrary	0-255	1.00	5.00
Sparkle 10° Red	arbitrary	0-255	1.00	5.00
Sparkle 45° Blue	arbitrary	0-255	1.00	5.00
Sparkle 45° Green	arbitrary	0-255	1.00	5.00
Sparkle 45° Red	arbitrary	0-255	1.00	5.00
Sparkle Area 10°	$\mu$ m <sup>2</sup>	10-100.000	2.00	10.00
Sparkle Area 45°	$\mu$ m <sup>2</sup>	10-100.000	2.00	10.00
Sparkle Brightness 10°	arbitrary	0-200	1.00	10.00
Sparkle Brightness 45°	arbitrary	0-200	1.00	10.00
Sparkle Density 10°	arbitrary	0-10,000	5.00	100.00
Sparkle Density 45°	arbitrary	0-10,000	5.00	100.00
Sparkle Visibility 10°	arbitrary	0-100	0.10	0.20
Sparkle Visibility 45°	arbitrary	0-100	0.10	0.20
Surface Blue	arbitrary	0-255	1.00	3.00
Surface Green	arbitrary	0-255	1.00	3.00
Surface Red	arbitrary	0-255	1.00	3.00
Waviness	WU	0-160	0.20	0.50