



PUREOPTIK
— Ophthalmic Lenses —



Spin Photochromic Lens Seris P1 Grey Performance Testing

2023.06

Product Test Checklist



- **Puresensor-P1-1.60 ----- (Pure)**
- **Transitions-T7-1.60 ----- (Transitions)**

01



- **Depth of Photo**
- **Fading Speed**
- **Temperature Resistance**
- **Discoloration Lifespan**

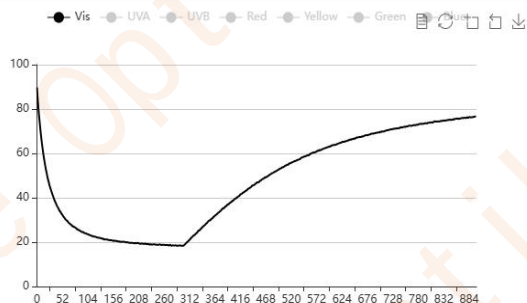
Sample1 P1 1.60UV400 HMC 23°

Photochromic Results

T	Visible Light Transmittance	UVA-band Transmittance	UVB-band Transmittance	Red Transmittance Visual Attenuation Factor	Yellow Transmittance Visual Attenuation Factor	Green Transmittance Visual Attenuation Factor	Blue Transmittance Visual Attenuation Factor
0	89.721%	0.131%	0.097%	91.527% 1.020	90.436% 1.008	89.284% 0.995	89.509% 0.998
15	18.431%	0.027%	0.026%	21.152% 1.148	17.748% 0.963	19.231% 1.043	22.235% 1.206
Photochromic Response Value	4.868	Half Recovery Transmittance	54.076	Half Recovery Time Point	Reaching Half Recovery in 206 Seconds After Irradiation		

Photochromic Curve

Trend Curve of Photochromic Transmittance



Transmission Curve Before & After Photochromic

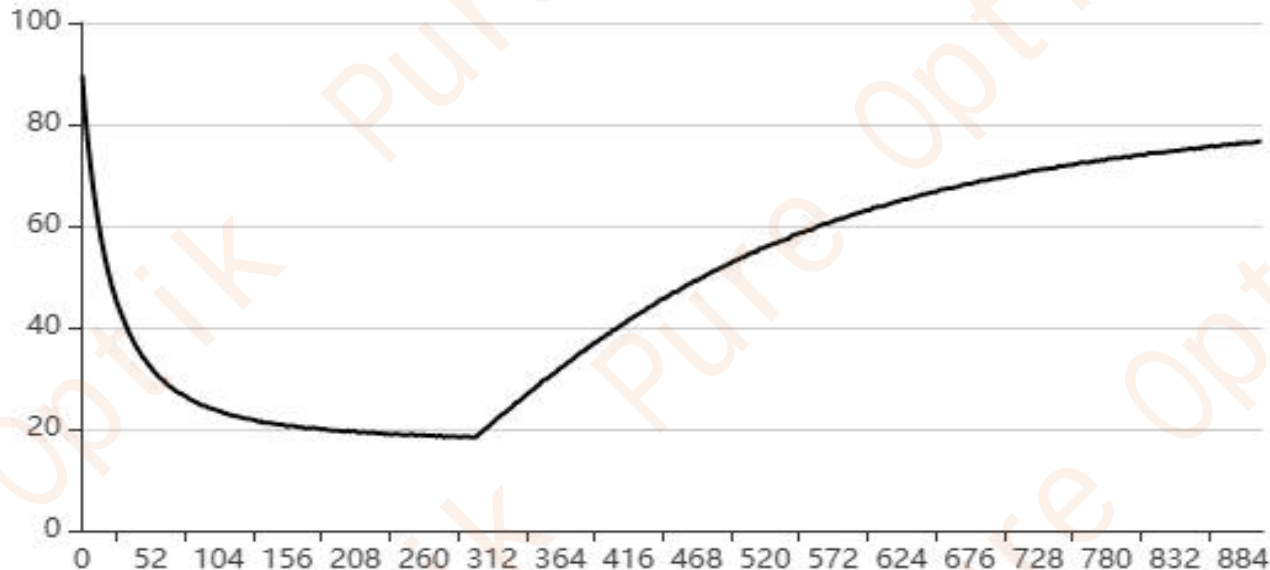


Photo/Fading



PUREOPTIK
— Ophthalmic Lenses —

1.60-P1 (23°) Fading Chart



X-Axis: Time/S

y-Axis: Transmittance/%

Sample2

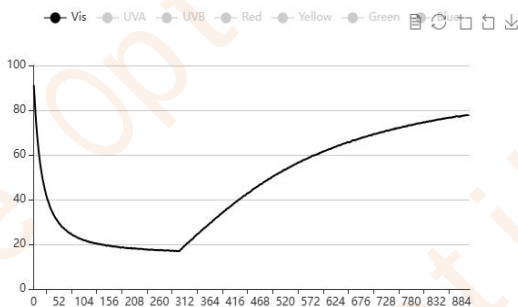
T7 1.60UV400 HMC 23°

Photochromic Results

T	Visible Light Transmittance	UVA-band Transmittance	UVB-band Transmittance	Red Transmittance Visual Attenuation Factor	Yellow Transmittance Visual Attenuation Factor	Green Transmittance Visual Attenuation Factor	Blue Transmittance Visual Attenuation Factor
0	91.237%	0.105%	0.073%	92.466% 1.013	91.666% 1.005	90.986% 0.997	91.134% 0.999
15	16.896%	0.011%	0.018%	19.362% 1.146	16.164% 0.957	17.715% 1.048	20.763% 1.229
Photochromic Response Value	5.400	Half Recovery Transmittance	54.067	Half Recovery Time Point	Reaching Half Recovery in 226 Seconds After Irradiation		

Photochromic Curve

Trend Curve of Photochromic Transmittance



Transmission Curve Before & After Photochromic

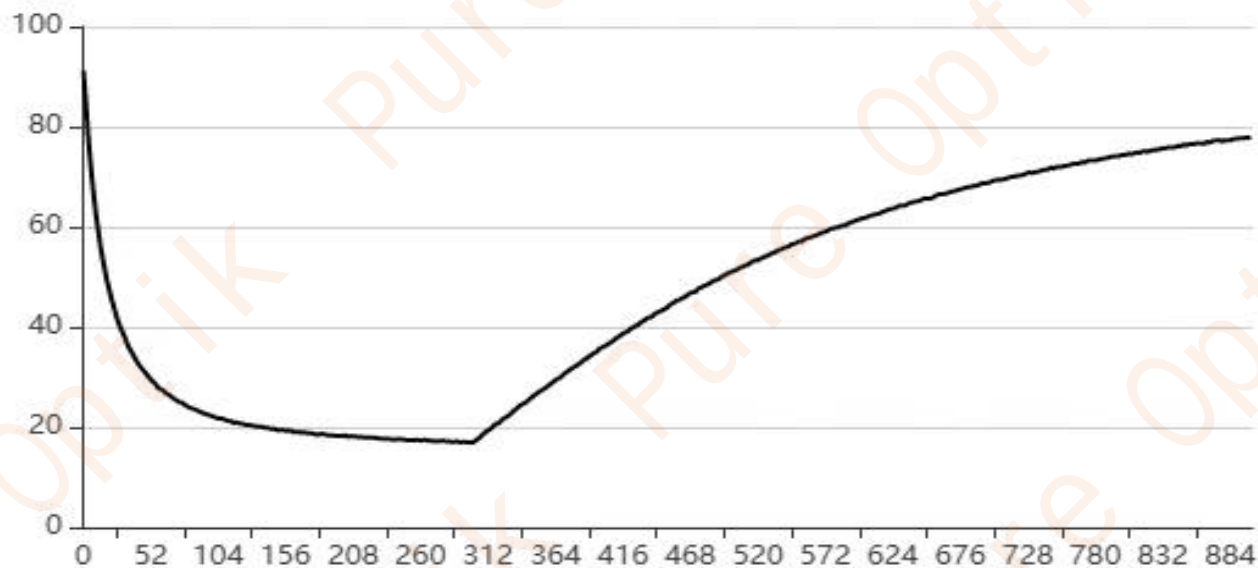


Photo/Fading



PUREOPTIK
— Ophthalmic Lenses —

1.60-T7 (23°) Fading Chart



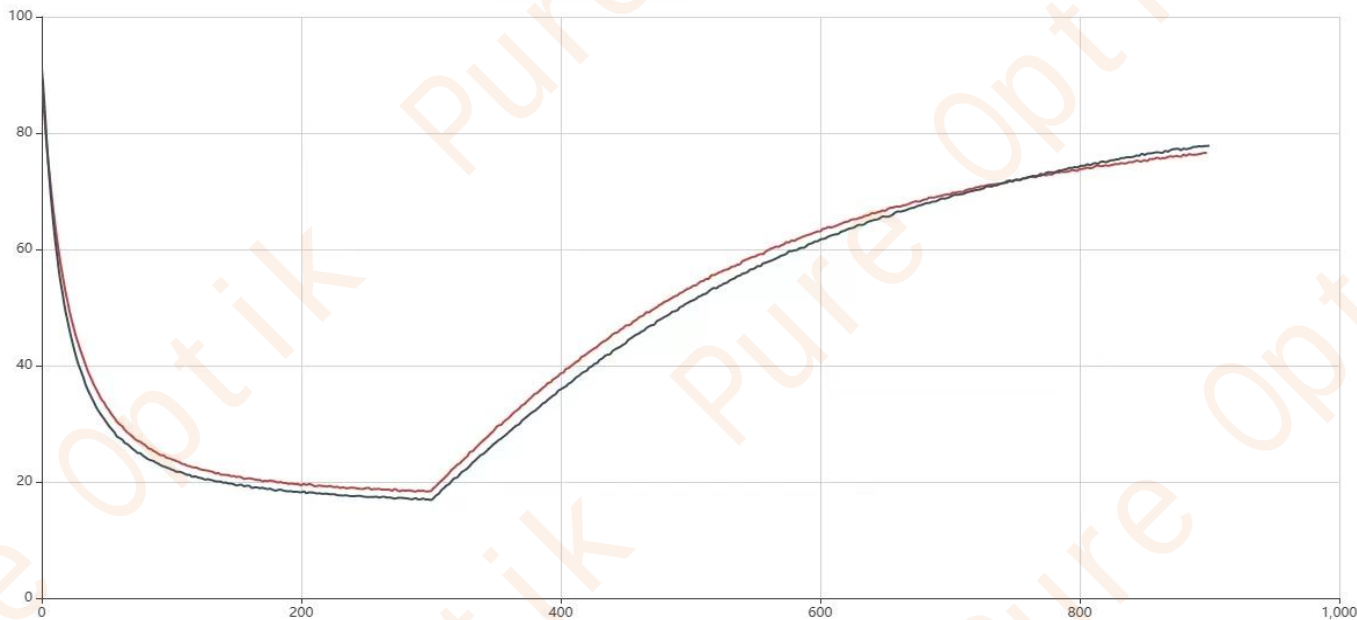
X-Axis: Time/S

y-Axis: Transmittance/%



1.60-P1 & T7 (23°) Fading Chart

● P1 1.60UV400 HMC 23° ● T7 1.60UV400 HMC 23°



X-Axis: Time/S

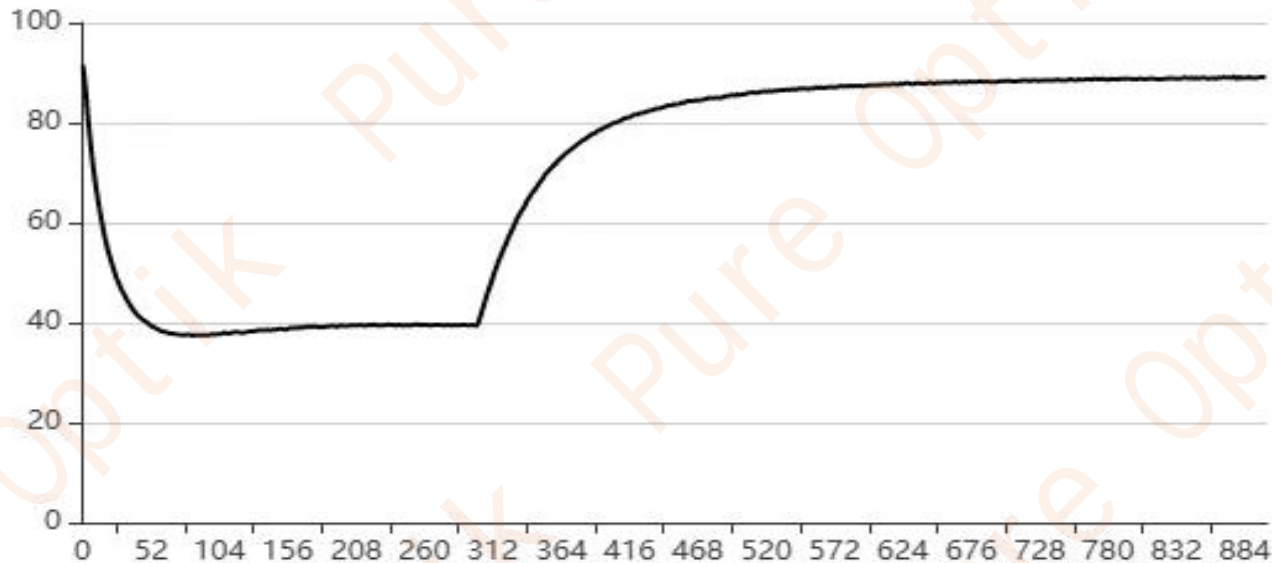
y-Axis: Transmittance/%

Photo/Fading



PUREOPTIK
— Ophthalmic Lenses —

1.60-P1 (35°) Fading Chart

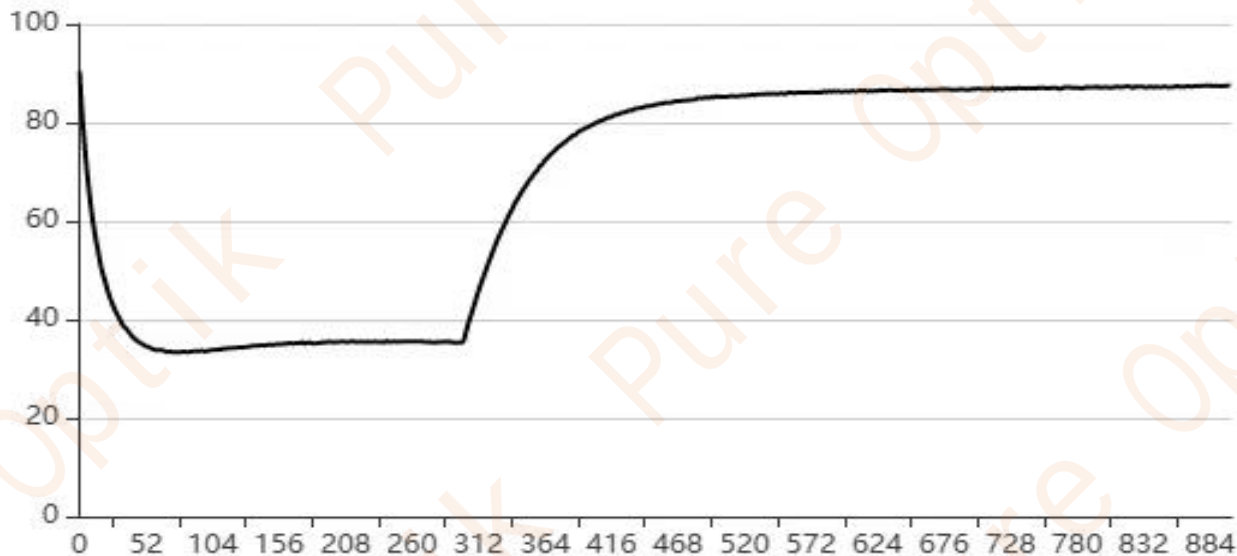


Photo/Fading



PUREOPTIK
— Ophthalmic Lenses —

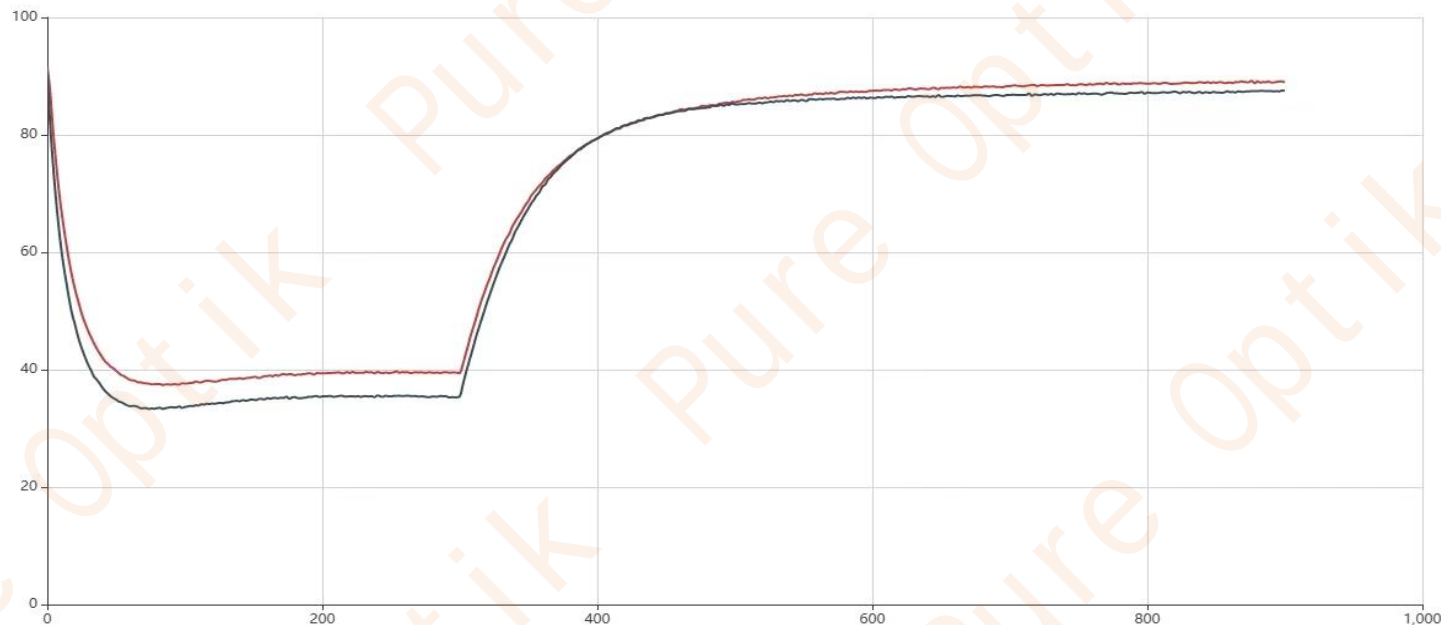
1.60-T7 (35°) Fading Chart



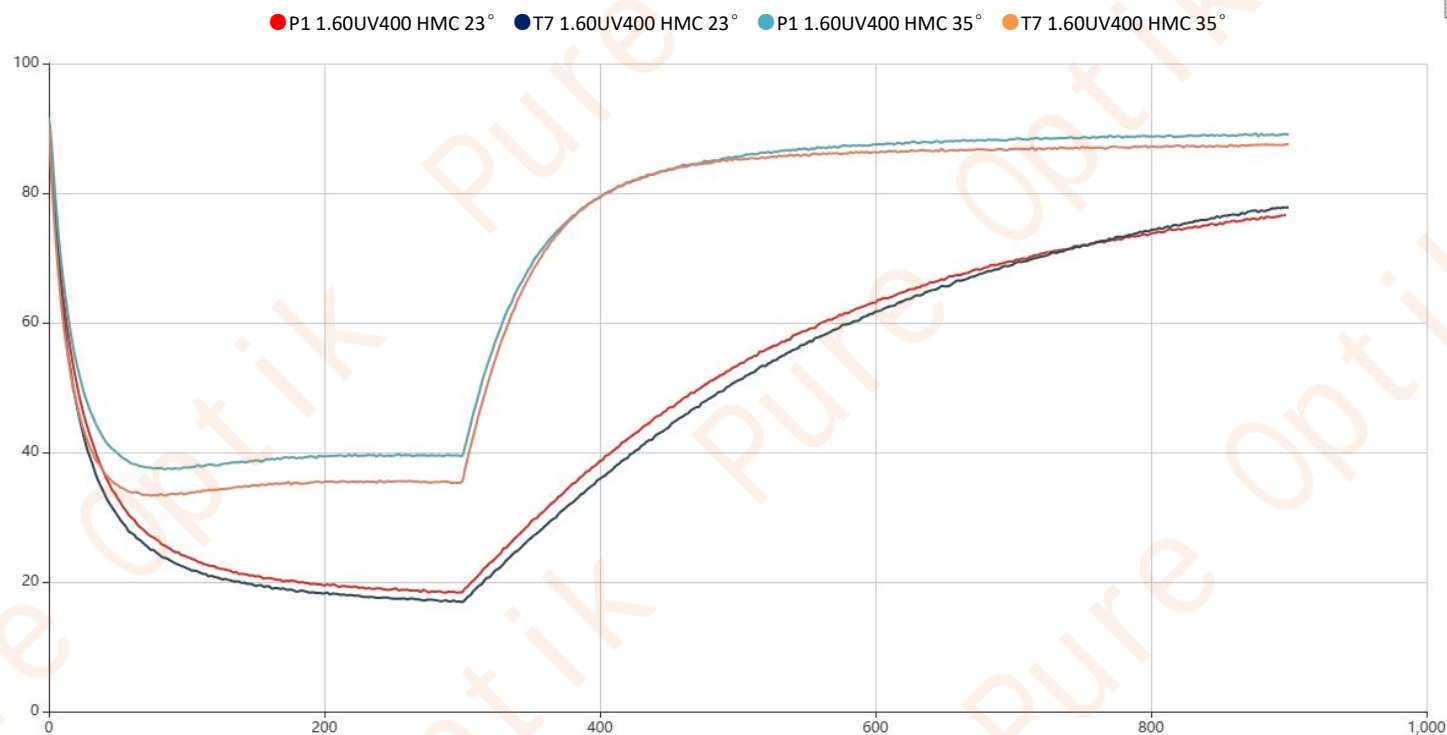


1.60-P1 & T7 (35°) Fading Chart

● P1 1.60UV400 HMC 35° ● T7 1.60UV400 HMC 35°



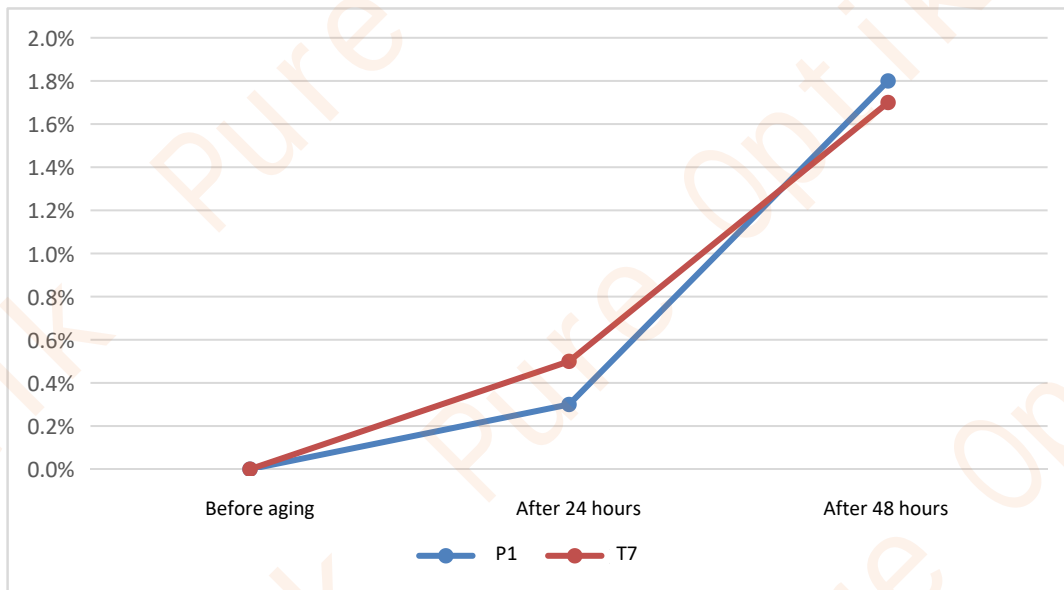
Analysis Chart of Photochromic Change Trend



Photochromic life

Effect of Photochromic depth after aging experiment

↓
Lower is Better



Conclusion: The Photochromic performance of PureSensor-P1 and Transitions-T7 after accelerated aging is basically the same

02



- 100 Grid Test
- High Temperature Coating Cracking Test

Coating Test



PUREOPTIK
— Ophthalmic Lenses —

Test Items	Puresensor-P1	Transitions-T7
100 Grid Test	Pass	Pass
High Temperature Coating Cracking Test	Pass	Pass