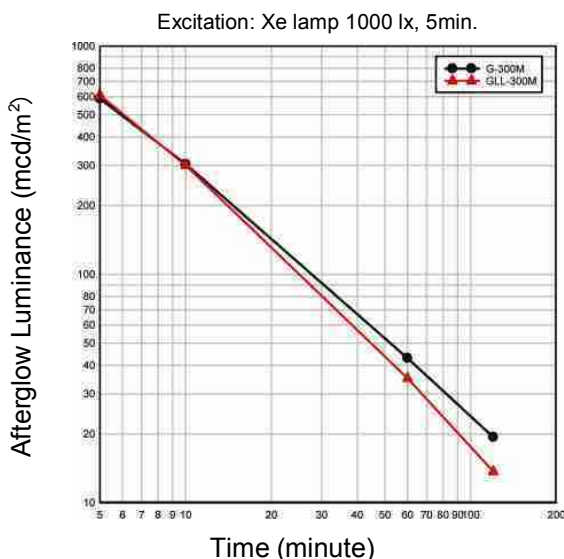


■ Characteristic and comparison between LumiNova G Series and conventional pigment

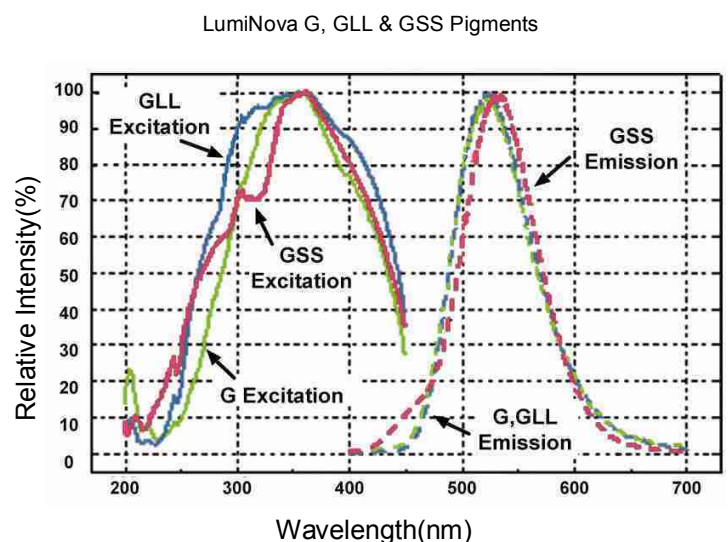
LumiNova G Series	LumiNova (G-300)	LumiNova (GLL-300)	Conventional Pigment (GSS)
Chemical Identity	SrAl ₂ O ₄ :Eu,Dy		ZnS:Cu
Body color	Light Yellowish Green	Yellowish Green	Yellowish Green
Av. Particle Size	2-60 μm ⁽⁶⁾	2-40 μm ⁽⁶⁾	20-40 μm ⁽⁶⁾
Excitation Wave Length	200-470 nm	200-470 nm	200-470 nm
Emission Wave Length	520 nm	520 nm	530 nm
Afterglow Brightness ⁽¹⁾	≅ 300 mcd/m ²	≅ 300 mcd/m ²	≅ 30 mcd/m ²
Afterglow Extinction ⁽²⁾	> 3,000min.	> 2,000 min.	200 min.
Excitation Time ⁽³⁾	~ 20 min.	~ 15 min.	~ 4 min.
Light Fastness ⁽⁴⁾	> 1,000 hours	> 1,000 hours	10-24 hours
Chemical Stability	Excellent	Excellent	Poor to good
Specific Gravity ⁽⁵⁾	3.6	3.6	4.1

- Brightness after 10 minutes excitation with Xe light of 1000 lx for 5 minutes.
- Time to decrease the afterglow to 0.32mcd/m² when excited with above condition.
- Time required for saturation with Xe light at 1000 lx.
- Time to drop the initial afterglow brightness by 20% after irradiation with 300W high pressure mercury lamp. (Accelerated light fastness test)
- In powder form.
- Depends on grade of LumiNova.

Fig. Afterglow Luminance of provided pigments



Excitation & Emission Spectra

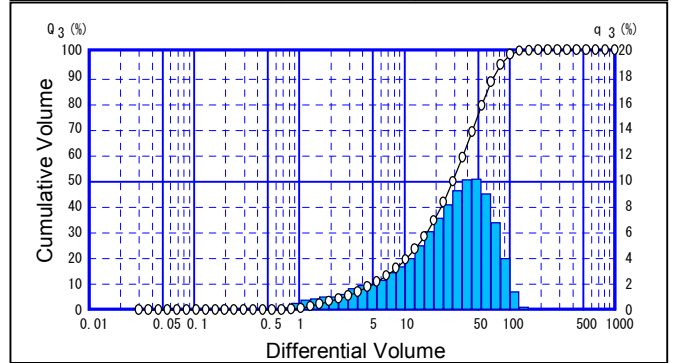
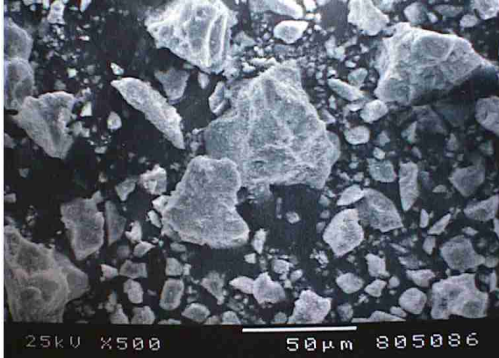


LumiNova[®]

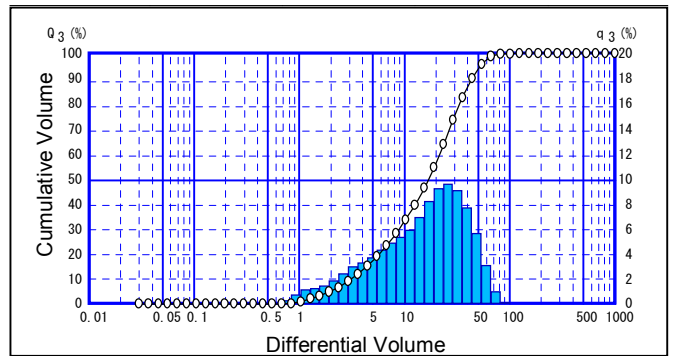
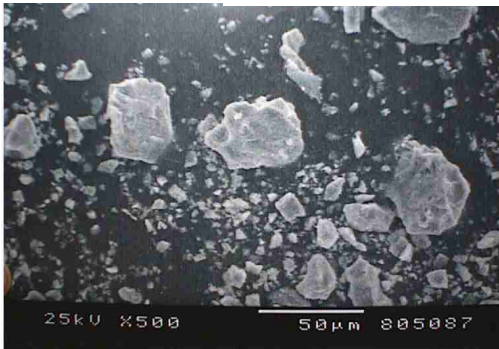
LIGHT FAST - SUPER BRIGHT
LONG AFTERGLOW
PHOSPHORESCENT PIGMENTS

LumiNova G-300 Series Particle distribution

G Grade	Typical Particle Size (μm)		
	D10	D50	D90
300 M	4.9	29.3	71.6
300 F	3.1	17	43.8



G-300M



G-300F

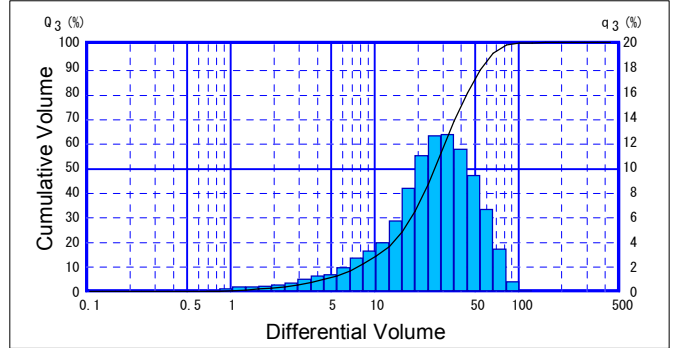
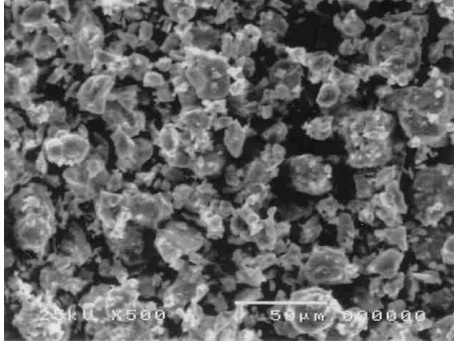


LumiNova[®]

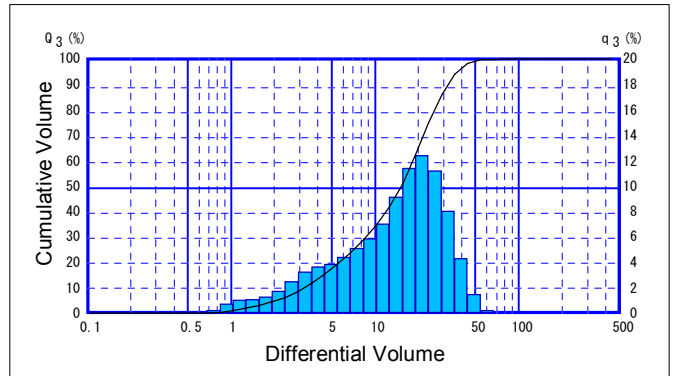
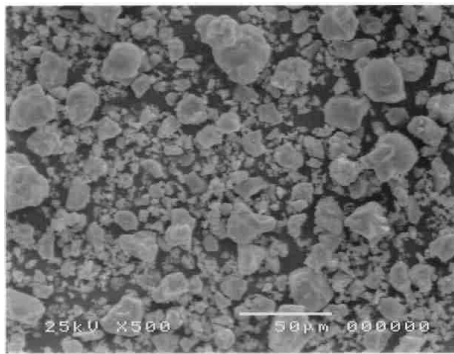
LIGHT FAST - SUPER BRIGHT
LONG AFTERGLOW
PHOSPHORESCENT PIGMENTS

LumiNova GLL-300 Series
Particle distribution

GLL Grade	Typical Particle Size (µm)		
	D10	D50	D90
300 M	7.7	26.3	55.6
300 F	3.2	15.2	32.2



GLL-300M



GLL-300F

