

米特奈米
科技股份有限公司

Meter⁻⁹

Introduction of Solar Heat Shading Coating MESM01

Meter Nano Technology.

<http://www.m-9.com.tw>



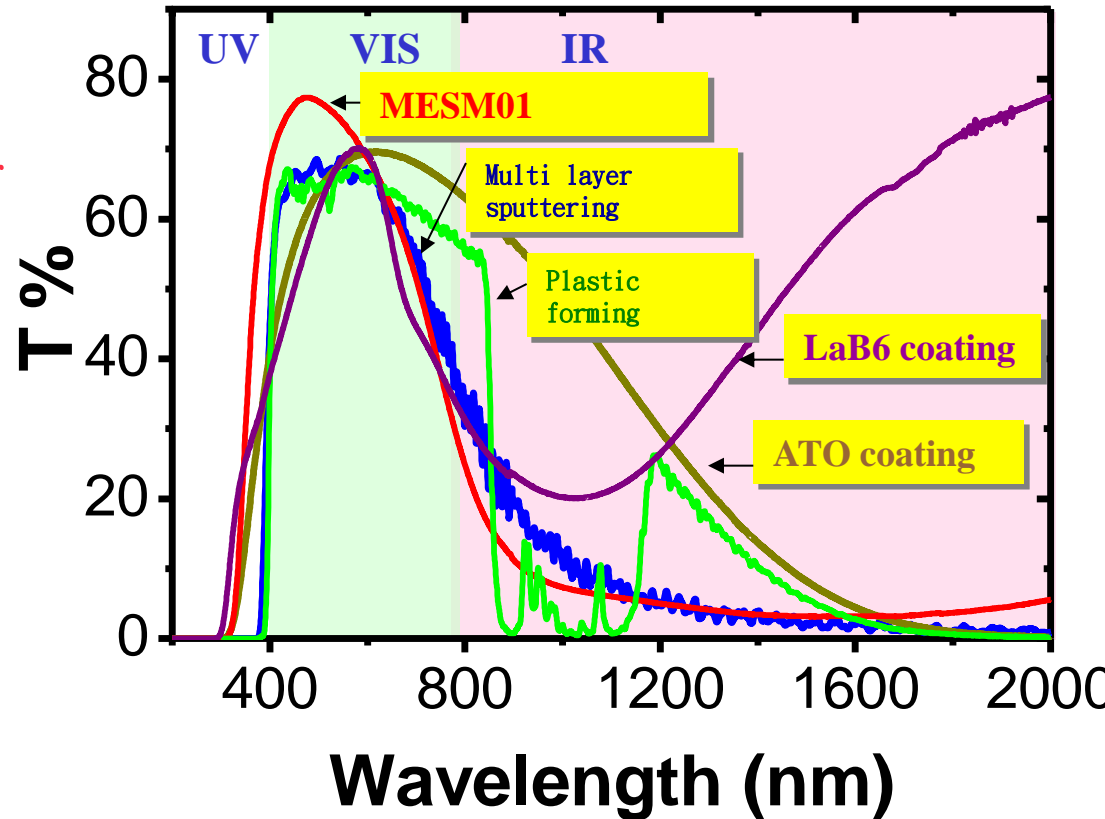
High Heat Shielding Technology Nano Coating (MESM01) Compare with Other Products

Characteristics of the Nano Coating(MESM01)

- ◆ High Transmittance, High heat shielding ($T_{vis}:70\%$, $R_{ir}:90\%$)
- ◆ By wet coating, easy to make
- ◆ Cost is cheaper than other similar products
- ◆ Using Metal Oxide, no fading
- ◆ No interference in RF Communication



Compare with other products

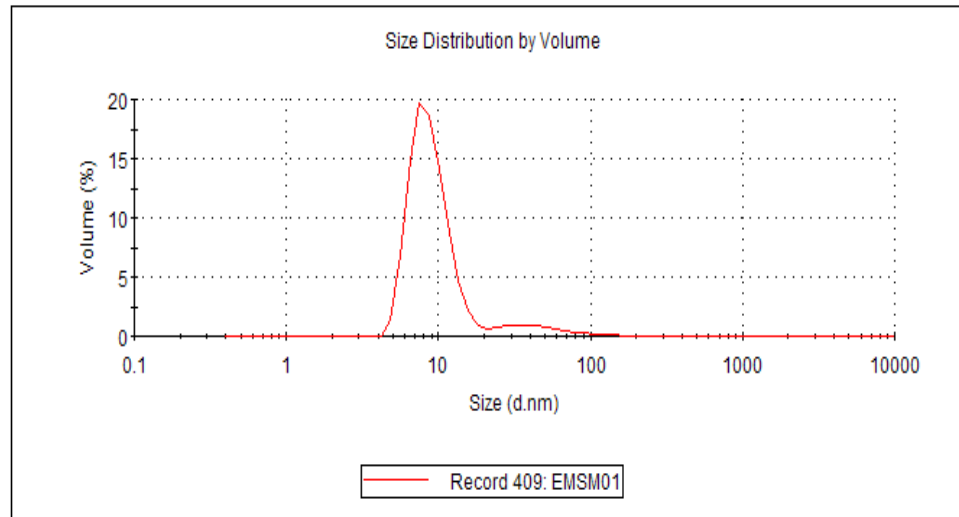


Specifications of MESM01.

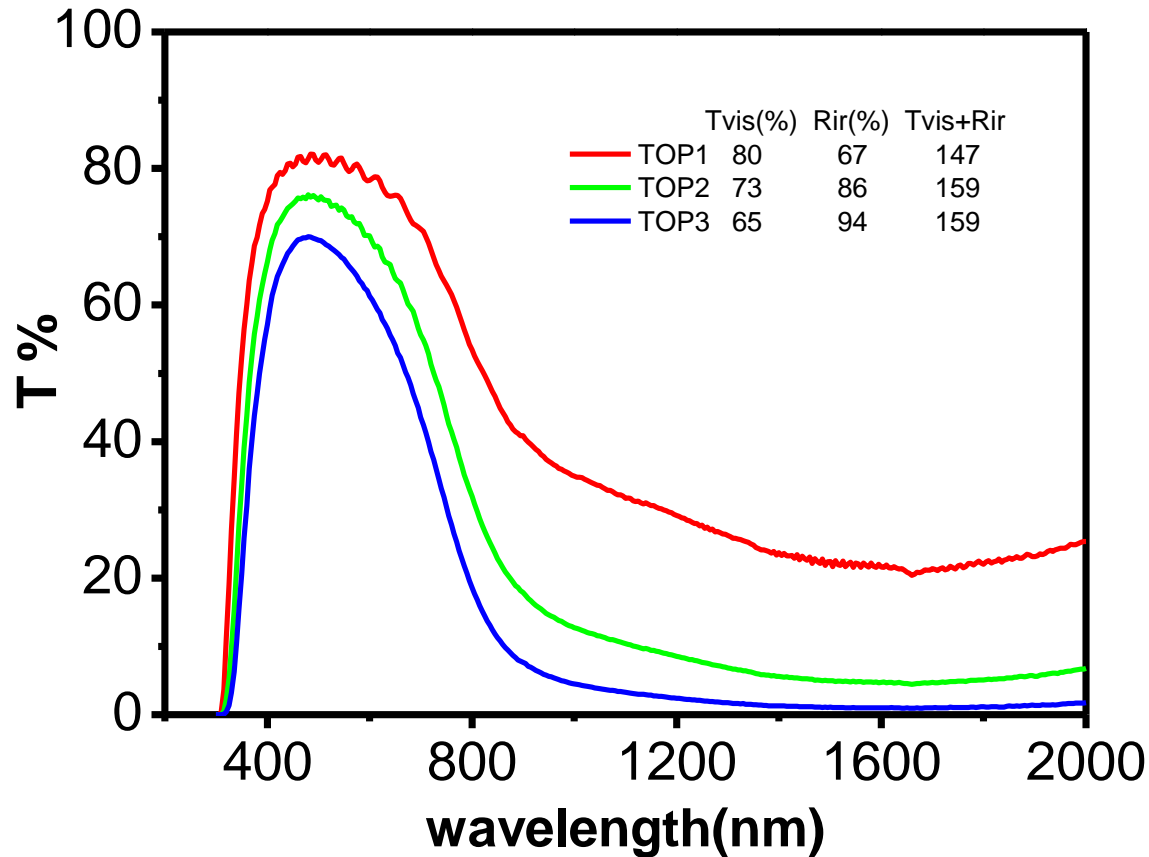
- **High Efficiency Energy-Saving Slurry MESM01:**
- (1) inorganic nano-sized metal oxide particles were used, no fading.
- (2) filler content: more than 20wt%.
- (3) $D(90)=10\text{nm}$, no bluish haze after coating.
- (4) compatible with UV resin system. UV re-coatable resins and Thermal curing system slurry are available (MESM02).
- (5) formulas: Slurry/MEK/UV resin=5/1/4, coated by using coating bar #10, the optics performance could reach 70(VLT%)/90(IR-cut)(160) by one time coating.
- (6) PET surface with chemical treated is recommended for coating.

Distribution of particle size

$D(90)=10.05\text{nm}$

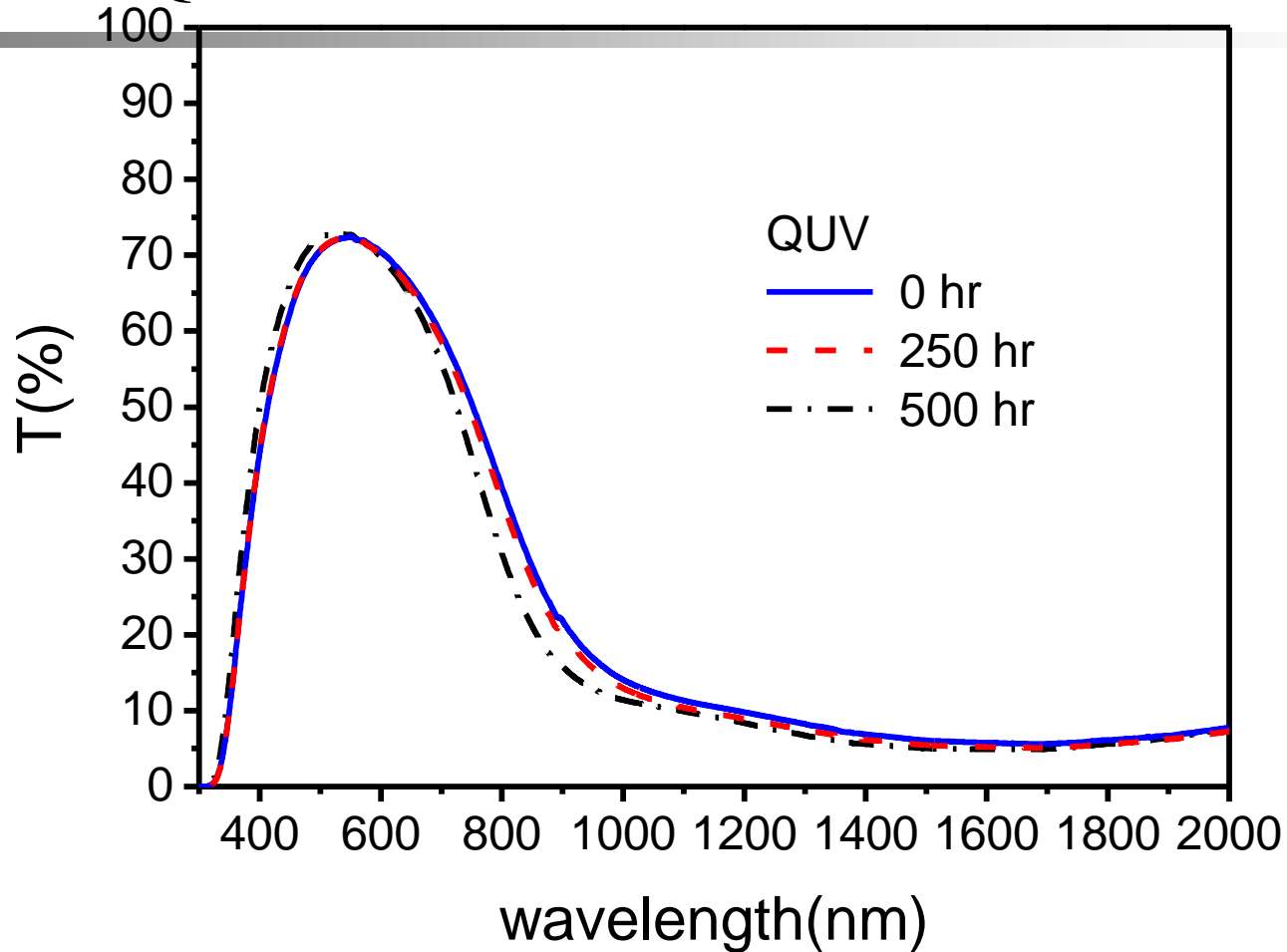


Transmittance vs. Solar Spectrum for the three Different Coating Samples



The result shows that the performance of the coating samples depend on the coating amount, The more the coating amount, the better the performance.

QUV Test for MESM01 coated film



The result shows that the material of MESM01 is quite stable even under the UV light (340nm) radiated for 500hrs. **Almost no fading.**
(In this experiment, the addition of UV absorber is needed)