

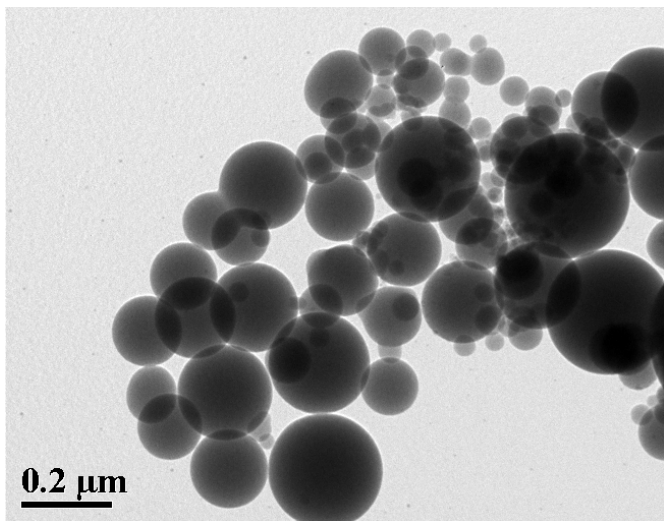
SUNCOLOR CORPORATION

ADDITIVES FOR COATINGS, INKS, ADHESIVES & THERMOPLASTICS

SUNSPHERES™ 200 Nm

The Sunospheres 200 Nm are 200 nanometer, optically clear, solid nanospheres designed for optimum dispersion in coatings, inks, adhesives, and thermoplastics. Cured films show enhanced physical and mechanical properties including increased corrosion resistance, reduced shrinkage, improved adhesion, and enhanced surface qualities such as mar and scratch resistance. This product is particularly useful in improving impact resistance. The Sunospheres 200 Nm nanospheres space pigments for optical effects, improve color density, and promote efficient and thorough curing of coatings with ultraviolet radiation.

The Sunospheres 200 Nm efficiently transmit ultraviolet and visible light from 200 nanometers through the visible spectrum, while absorbing in the IR range. These engineered fused, amorphous silica nanospheres are resistant to temperatures greater than 1000 degrees C. and are chemically stable in a vast range of resins and pH. Dosage is typically 3-12% by total weight of the finished composition. The average particle size is 100-200 nanometers and range in size from 50-under 500 nm.



SUNSPHERES 200 Nm

THE MARK SUNSPHERES™ IS A PROPRIETARY TRADEMARK OF SUNCOLOR CORPORATION. LIGHT TRANSMISSION TECHNOLOGY IS THE SUBJECT OF US & INTERNATIONAL PATENTS PENDING AND COVERED UNDER US PATENT NO. 6,350,792 & NO. 6,660,374. THE INFORMATION PRESENTED IS TO THE BEST OF OUR KNOWLEDGE TRUE AND CORRECT. ALL SUGGESTIONS AND RECOMMENDATIONS ARE WITHOUT WARRANTY AND GUARANTEE AS THE CONDITIONS OF USE ARE BEYOND OUR CONTROL. WE DISCLAIM ANY LIABILITY INCURRED IN CONNECTION WITH THE USE OF THIS DATA. REVISION 9-13-07.

PHYSICAL & CHEMICAL PROPERTIES:

Refractive Index	1.46 (N _D)
Softening Temperature	>1000 ⁰ C
Strain Point	>600 ⁰ C
Coefficient of Thermal Expansion	55 x 10 ⁻⁷ /°C
DC Resistivity	1 x 10 ⁸
Hardness (Mohs) Scale	> 8.0
BET Surface Area (sq.m/g)	23.52
Ph	4.60
Oil Absorption	25
Moisture	0.07%
Crushing Strength	>60,000 psi
Appearance	Fine White Powder
X-Ray Form	Amorphous
SiO ₂	99.99%
Na ₂ O	2 ppm
K ₂ O	2 ppm

SUNCOLOR CORPORATION

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