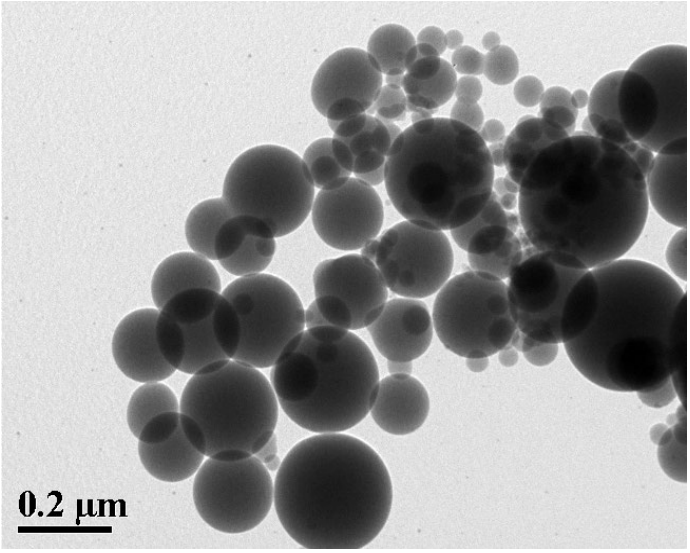
SUNSPHERES™ 200 Nm

The Sunspheres™ 200 Nm are optically clear, solid microspheres designed for use in a wide variety of composites, coatings, inks, adhesives, powder coatings, and thermoplastics. These sub-micron sized spheres can be used to improve physical and mechanical properties including reduced shrinkage, improved adhesion, impact resistance, and enhanced surface qualities such as hardness, mar and scratch resistance. The Sunspheres™ 200 Nm space pigments for optical effects and improve color density. These microspheres are particularly useful in formulating corrosion resistant high solids and UV curable primers. The dielectric properties and very high electrical receptivity of these materials over a wide range of temperatures, together with their low thermal conductivity allow their use as an electrical and thermal insulating material in a range of environments.

The Sunspheres™ 200 Nm efficiently transmit ultraviolet and visible light from 200 nanometers through the visible spectrum. They promote efficient and thorough curing of coatings with ultraviolet radiation. These engineered fused, amorphous silica nanospheres are resistant to temperatures greater than 1000 °C. and are chemically stable in a vast range of resins and pH. Dosage is 3 to 50% by total weight of the finished composition. The average particle size is 200 nanometers and range in size from about 50 nm to 500 nm. Silane surface treated Sunspheres™ 200 Nm are available upon request. New innovative dispersion technology for this product is available upon request.



Sunspheres 200™ Nm.

PHYSICAL & CHEMICAL PROPERTIES:	
Refractive Index	**1.46 (N_D)**
Softening Temperature	**>1000^0 C**
Strain Point	**>600^0 C**
Coefficient of Thermal Expansion	**0.48 x 10^{-6}/K**
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**
SiO2	**99.99%**
Na2O	**2 ppm**
K2O	**2 ppm**

See reverse side for additional information

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FOR SAMPLES & CUSTOMER SERVICE, CONTACT MARY ZINK
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