



SUNSPHERES™ 15.0

DESCRIPTION

SUNSPHERES™ 15.0 are optically clear, solid fused amorphous silica microspheres specially engineered for paints, coatings, inks, adhesives, thermoplastics and composites. These microspheres increase corrosion resistance, reduce shrinkage, improve adhesion and impact resistance, and enhance surface qualities including mar and scratch resistance.

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. SUNSPHERES 15.0™ are inert to most substances, virtually all acids, allowing their use in arduous and hostile environments.

LIGHT TRANSMISSION

SUNSPHERES™ 15.0 transmit more than 85% of UV light having a wavelength of 200 nanometers and transmit more than 95% of UV light having a wavelength of greater than 300 nanometers. When dispersed in radiation curable coating formulations, these spheres allow pigmented and/or thick, clear coatings to be cured readily with ultraviolet radiation.

SIZING & USE:

SUNSPHERES™ 15.0 have a median particle size of approximately 15.0 microns, with 90% of particles passing 45 microns. Recommended dosages are 10 to 25% by weight of total coating formulation. SUNSPHERES™ are designed for use in thick coatings appropriate to their size. In thinner coatings, the SUNSPHERES™ 15.0 provide texture. Given the low surface area of the spheres, the viscosity of the coating resins can be decreased and the use of solvents can be reduced.

TYPICAL PARTICLE SIZE ANALYSIS*:		PHYSICAL & CHEMICAL PROPERTIES*:	
Median Diameter Approx. 15.0 Microns			
<u>Microns</u>	<u>% Passing</u>	<u>Index of Refraction</u>	<u>1.458(n_D)</u>
45	90	<u>Softening Temperature</u>	<u>>1000°C</u>
22	66	<u>Strain Point</u>	<u>>600°C</u>
11	43	<u>Coefficient of Thermal Expansion</u>	<u>0.48 x 10⁻⁶/K</u>
5.5	28	<u>DC Resistivity</u>	<u>1 x 10⁸</u>
2.75	13	<u>Hardness (Mohs) Scale</u>	<u>7.0</u>
1.375	1	<u>BET Surface Area (sq.m/g)</u>	<u>1.2</u>
0.50	0	<u>pH</u>	<u>4-5</u>
Shape: Solid, Spherical to Well Rounded Microspheres		<u>Structure/Amorphous SiO₂</u>	<u>>99%</u>
		<u>Crushing Strength</u>	<u>>60,000 psi</u>
*Copies of actual COA's listing actual measured values of data shown above are available upon request.			

THE MARKS SUNSPHERES™ ARE PROPRIETARY TRADEMARKS OF SUNCOLOR CORPORATION. UVT 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 THESE DATA. REVISED JANUARY 2021.

See reverse side for additional information



**NORTH CANTON, OHIO 44720
DIRECT TELEPHONE: 330.499.7010**

**FOR SAMPLES & CUSTOMER SERVICE, CONTACT MARY ZINK
TEL: 330.327.2997 or mzink@suncolorcorp.com**

All information, including all data presented in the tables above entitled Typical Particle Size Analysis* and Physical and Chemical Properties*, recommendations, or advice contained in this document and related product data sheets given by Suncolor Corporation whether written or oral is given in good faith, to the best of its knowledge at the time of publication. The products of Suncolor Corporation are sold subject to Conditions of Sale. Nothing in this or any other document shall alter, vary, supersede or operate to waive any of the Conditions of Sale. Each user of the products shall convince himself, through all available sources (including finished product testing in its appropriate environment) of the suitability of the products supplied for its own particular purpose. Because actual use of the products by the user is outside the control of Suncolor Corporation, such use is within the exclusive responsibility of the user. Suncolor Corporation cannot be held responsible for any loss incurred through incorrect or faulty use of the products. Information, recommendations and/or advice are neither made to infringe on any patents, nor to grant a license under any patent or intellectual property right of Suncolor Corporation, nor to grant the right to file for any patent protection.