

# SUNCOLOR CORPORATION

## ADDITIVES FOR COATINGS, INKS, ADHESIVES & THERMOPLASTICS

### SUNSPHERES™ 03.0

#### DESCRIPTION

SUNSPHERES 03.0 are optically clear, solid fused amorphous silica microspheres specially engineered for optimum dispersion in paints, coatings, inks, adhesives, thermoplastics, and composites. These microspheres increase corrosion and impact resistance, reduce shrinkage, improve adhesion, and enhance surface qualities including mar and scratch resistance. SUNSPHERES 03.0 are ideally suited for specialty applications where mechanical and rheological properties are required.

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 03.0 are chemically stable in a vast range of resins and pH.

#### LIGHT TRANSMISSION:

The Sunsppheres 03.0 efficiently transmit ultraviolet and visible light from 200 nanometers through the visible spectrum. These microspheres space pigments and promote efficient, thorough curing by ultraviolet radiation.

#### SIZING & USE:

SUNSPHERES 03.0 have a median particle size of 3 microns, with a particle size range of 0.5 microns to 95% passing 23 microns. Recommended dosages are 3 to 50% by weight of total weight of formulation. Due to their low surface area, Sunsppheres 03.0 are easily dispersed.

TYPICAL PARTICLE SIZE ANALYSIS: <i>By MicroTrac/ Median Diameter Approx. 3.0 Microns</i>		PHYSICAL & CHEMICAL PROPERTIES:	
(Microns) 23	(% Passing) 96.0	Specific Gravity	2.2
11	82.4	Index of Refraction	1.458(n <sub>D</sub> )
5.5	61.98	Softening Temperature	>1000 <sup>0</sup> C
2.75	29.17	Strain Point	>600 <sup>0</sup> C
1.375	8.20	Coefficient of Thermal Expansion	55 x 10 <sup>-7</sup> / <sup>0</sup> C
0.50	0	DC Resistivity	1 x 10 <sup>8</sup>
Shape: Solid Spherical Powder		Hardness (Mohs) Scale	7.0
		BET Surface Area (sq.m/g)	9.4
		Oil Absorption	<10
		Ph	5
		Structure/Amorphous SiO <sub>2</sub>	>99%
		Crushing Strength	>60,000 psi

THE MARK SUNSPHERES™ IS A PROPRIETARY TRADEMARK 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 2015.

See reverse side for additional information

# **SUNCOLOR CORPORATION**

**1325 IRONDALE CIRCLE N.E.**

**NORTH CANTON, OHIO 44720**

**DIRECT TELEPHONE: (330) 499-7010 FAX: (330) 499-3692**

**FOR SAMPLES & CUSTOMER SERVICE, CONTACT MARY ZINK**

**TEL: 330.327.2997 or [mzink@suncolorcorp.com](mailto:mzink@suncolorcorp.com)**

**[WWW.SUNCOLORCORP.COM](http://WWW.SUNCOLORCORP.COM)**

All information, 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.