

SUNCOLOR CORPORATION

ADDITIVES FOR COATINGS, INKS, ADHESIVES & THERMOPLASTICS

SUNSPACERS™ 04.X

DESCRIPTION

SUNSPACERS 04.X are (transparent) solid, random shaped particles that have the appearance of a fine white powder. The Sunspacers 04.X have a median size of 3-4 microns and are optically clear, solid fused (100% amorphous) silica particles designed for optimum dispersion in coatings, inks, adhesives, thermoplastics, and powder coatings. 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. The Sunspacers 04.X space pigments and promote efficient and thorough curing of coatings cured by ultraviolet radiation. The Sunspacers 04.X can also be used to fill cracks and pores in substrates.

The Sunspacers 04.X efficiently transmit ultraviolet and visible light from 200 nanometers through the visible spectrum. 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 0.5-12% by total weight of the finished composition. Due to their low surface area, the Sunspacers 04.X are easily dispersed.

SIZING & USE:

SUNSPACERS 04.X have a median particle size of approximately 3-4.0 microns, with 100% of particles passing 11.0 microns. Dosages range from 0.5 to 50% by weight of total coating formulation. High dosages are used for super thick compositions including adhesives. These particles are particularly useful for improving abrasion, mar & scratch resistance in clear and pigmented coatings.

TYPICAL PARTICLE SIZE ANALYSIS: <i>By MicroTrac/ Median Diameter Approx. 3-4.0 Microns</i>			PHYSICAL & CHEMICAL PROPERTIES:	
(Microns) 22	(% Passing)	100	Specific Gravity	2.2
11		100	Index of Refraction	1.458(n _D)
5.5		85	Softening Temperature	>1000 ⁰ C
2.75		33	Strain Point	>600 ⁰ C
1.375		8	Coefficient of Thermal Expansion	55 x 10 ⁻⁷ / ⁰ C
10% Finer		1.50	DC Resistivity	1 x 10 ⁸
50% Finer		3.50	Hardness (Mohs) Scale	> 7.0
90% Finer		6.00	BET Surface Area (sq.m/g)	2.7
Shape: Solid Powder/Angular			Oil Absorption	<10
			Ph	5-6
			Structure/Amorphous SiO ₂	>99%
			Crushing Strength	>60,000 psi

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