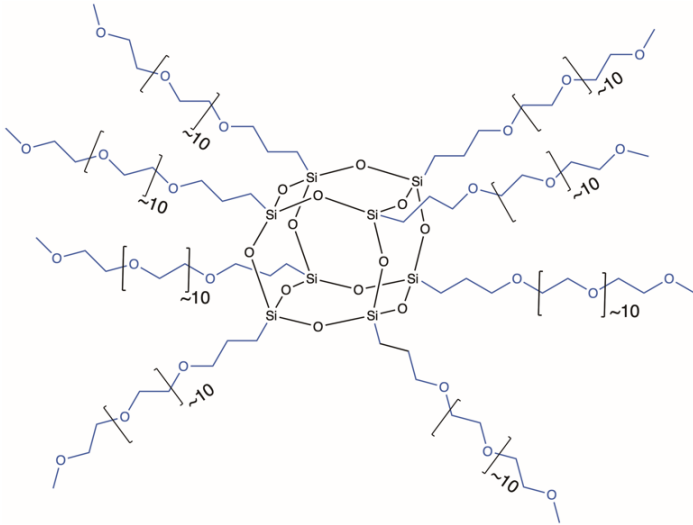


POSS® PG1190

A Disentanglement & Dispersion Solution for Nanocarbons

KEY ADDITIVE



APPLICATIONS

Excellent dispersion of nanocarbons and pigments in various coating systems.

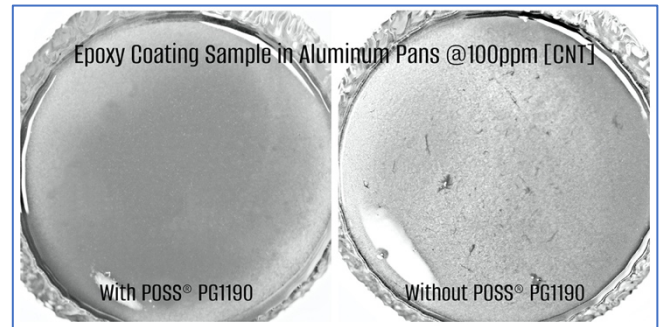
PRODUCT FEATURES & BENEFITS

PG1190 is the powerhouse of the multifunctional hybrid molecules known as POSS®. PG1190 eliminates the need for multiple formulation additives by providing an All-in-One solution.

**PG1190 enables an easy letdown of the CNT concentrates in order to achieve an economical ESD response.*

DESCRIPTION & COMPATIBILITY

PG1190 is a unique hybrid molecule consisting of a rigid silsesquioxane core with methoxylated polyethylene glycol (PEG) arms which work together to establish outstanding surface features that include desirable wetting, leveling, gloss, and excellent disentanglement and dispersion of all carbon nanotubes.



BENEFITS

- Superior CNT disentanglement
- Superior CNT dispersion
- Lower CNT loading levels
- Rapid low shear mixing
- Surface Leveling
- Higher Gloss in pigmented coatings
- Adhesion & Scratch Resistance

SUGGESTED FORMULATION

The addition of PG1190 to a formulation can significantly simplify production of all CNT coating formulations.

Below is a starter epoxy formulation including PG1190 which eliminates the need for multiple additional additives.

EPOXY COATING FORMULATION

EPON 862	50.00	
[CNT]	0.02	(200ppm)
PG-1190	0.25	(2500ppm)
BYK-110	0.15	
Quartz	46.00	
TiO ₂	3.00	

TOTAL BATCH 100.00 wt. %

ESD response in 24 μ coatings using PG1190

	10 ppm	100 ppm	200 ppm	500 ppm
Long CNT	x10 ⁷	x10 ⁵	x10 ⁴	x10 ³
Short CNT	x10 ⁹	x10 ⁷	x10 ⁶	x10 ⁵