

# PERFORMANCE MINERALS FOR SPECIALTY APPLICATIONS

## THIXO-CARB® HP

### Precipitated Calcium Carbonate (PCC)

THIXO-CARB® HP Precipitated Calcium Carbonate (PCC) is a high surface area, surface treated, ultrafine pcc developed specifically for high performance polysulfide, PVC plastisol, silicone and epoxy sealant systems. THIXO-CARB® HP PCC with its unique coating and narrow particle size distribution is a rheological additive providing thixotropy and viscosity control, thus improving sag and slump resistance. As a semi-reinforcing agent, Thixo-Carb® HP PCC yields improved physical property performance and provides the formulator a cost effective means to meet high performance demands of performance sealant systems.

### Typical Physical Properties

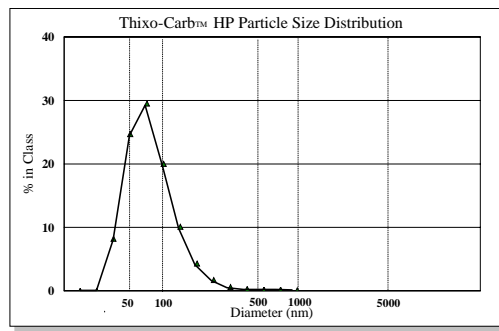
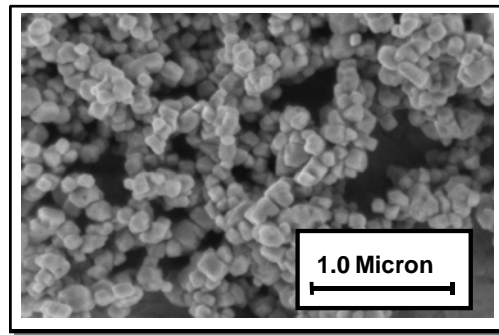
#### Typical Properties

Surface area (m <sup>2</sup> /grams)	28
Average Particle Size (microns)	0.06
Specific Gravity	2.7
Coating Level (%)	2.8

#### Chemical Composition

(typical - before treatment)

Calcium Carbonate	CaCO <sub>3</sub>	98%
Magnesium Carbonate	MgCO <sub>3</sub>	1%
Iron as	Fe <sub>2</sub> O <sub>3</sub>	< 0.1%
Moisture (% weight loss @ 100°C)	H <sub>2</sub> O	< 0.2%



Test Conditions: Dilute aqueous dispersion  
 Equipment: Malvern Zetasizer 1000

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**Performance of SMI Ultrafine PCC in targeted sealant formulations:**

Equipment: Contraves RM-265 Rheometer with DIN 108 geometry.

Test Conditions:

1. Ramp to 228 s<sup>-1</sup> over 1 minute
2. Hold for 6 minutes
3. Ramp down to 0 s<sup>-1</sup> over 1 minute

**Generic Formulation:**

Polysulfide Formulation:           Parts

Liquid Polysulfide Polymer	100
Plasticizer	20
Silane A-187 (coupling agent)	1
TiO <sub>2</sub>	5
Toluene	5
VICRON <sup>®</sup> GCC 25-11	75
THIXO-CARB <sup>®</sup> HP PCC	30

PVC Plastisol Formulation:       Parts

PVC Resin	145
Plasticizer	261
CaO	18
VICRON <sup>®</sup> GCC 25-11	110
THIXO-CARB <sup>®</sup> HP PCC	203
Isopar L (diluent)	32
Rutapox (Adhesion promoter)	3.7

