



Your Mineral and Materials Solutions Partner

GET TO KNOW US



Product Portfolio | Coatings

Covia's functional fillers are utilized around the globe for enhanced performance in decorative and industrial primers and topcoats, OEM, adhesives and sealants, artist colors and many more applications. Covia's vision is to supply the best materials with the best logistics for sustainable, functional engineered materials.

Brands

MINEX[®]
Functional Filler

Nepheline Syenite

IMSiL[®]
Microcrystalline Silica

Microcrystalline Silica

GRANUSiL[®]
High-Performance Industrial Silica

Silica Sand

HiFill[™] Calcium Carbonate Filler

Calcium Carbonate

SnoBrite[™] Air Floated Kaolin

Kaolin

HiWhite[™] Natural Ground Barium Sulfate

Barium Sulfate



New for 2022! | Coatings

New Brands

LUMiNEX™ C
US-made Ultrawhite Filler



Ultrawhite Durable Filler

LUMiNEX™ C

Ultrawhite Durable Filler

TECHNICAL DATA SHEET

Fort Smith, AR 72701

FEATURES & BENEFITS

LUMiNEX™ C ultrawhite durable filler has been specifically developed for the North American coatings, adhesives, sealant and grout markets. This durable filler is thermally modified and micronized to further enhance and provide superior optical whiteness and longtermness in elastomeric and cool white roof coatings systems. LUMiNEX C enhances UV resistance, abrasion, surface hardness and chemical resistance. Our filler is also lower in density than conventional fillers, reducing the overall weight or increasing the volume solids at equal loading in typical coating systems for better coverage and lighter weight systems. Ideal applications for LUMiNEX C include elastomeric cool white roof coatings, acrylic, polyurethane, and silicone roof coating systems, EPS Coatings, high whiteness sealants, adhesive, and grout applications. It is also useful in white traffic paints to increase whiteness and night time retro-reflectance in traffic marking applications.

PARTICLE SIZE ANALYSIS AND PROPERTIES

Typical Mean Values. These Do Not Represent a Specification.

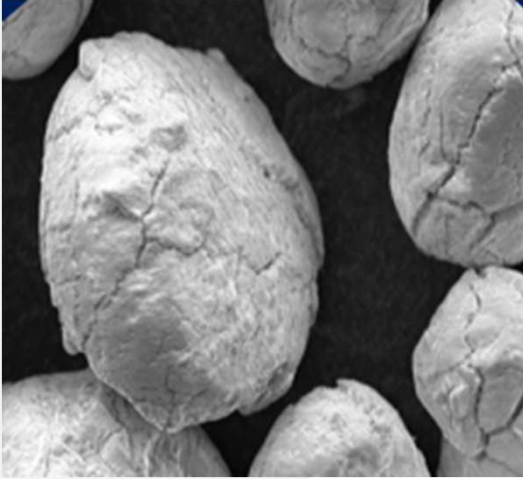
| LUMiNEX™ C Grade | | |
|----------------------|-----------|--------|
| % Ret (Sedigraph) | Microns | 4 |
| | 75 | 100.00 |
| | 45 | 97.70 |
| | 20 | 71.35 |
| | 10 | 54.25 |
| | 5 | 34.95 |
| Median Particle Size | Sedigraph | 3.05 |

PHYSICAL PROPERTIES

Typical Mean Values. These Do Not Represent a Specification.

| LUMiNEX™ C Ultrawhite Durable Filler | | |
|---|-------------------|-------|
| Maximum Value | ASTM D1270-79 | 4.0 |
| Specific Surface Area (m ² /g) | m ² /g | 2.88 |
| Brightness | TiO ₂ | 97.0 |
| Color | L | 98.20 |
| | a | -0.03 |
| Moisture % | b | 0.24 |
| | ASTM C-598 | 0.15 |
| DE Absorption | ASTM D-281 | 23.4 |
| pH | APS 115-87-5 | 10.3 |

LUMINEX C | Product Overview



- ▶ LUMINEX C is a specialty silica blend composed primarily of cristobalite, that is transformed from high quality spherical quartz grains. Source is owned by Covia
- ▶ LUMINEX C is thermally treated to alter structure and enhance whiteness, then micronized and sized to 50 microns top-size.
- ▶ Lower iron and density than conventional durable silica and silicate fillers.
- ▶ Produced by Covia at Ft. Smith, AR as a domestic sourcing solution
- ▶ Economy of scale for competitive economics versus existing solutions.

LUMINEX C 4 | Technical Data

PARTICLE SIZE ANALYSIS AND PROPERTIES

Typical Mean Values. These Do Not Represent a Specification

| | LUMINEX™ C Grade | |
|--------------------------|------------------|--------|
| % Finer (MasterSizer) | Microns | 4 |
| | 75 | 100.00 |
| | 45 | 97.70 |
| | 20 | 77.35 |
| | 14 | 64.25 |
| | 10 | 52.95 |
| | 5 | 34.95 |
| Median Particle Size | MasterSizer | 9.05 |

PHYSICAL PROPERTIES

Typical Mean Values. These Do Not Represent a Specification

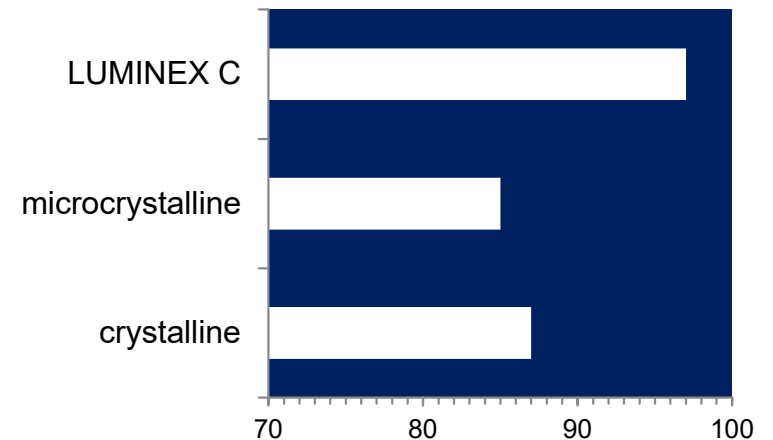
| LUMINEX™ C Grade | | |
|---|-------------------|-------|
| Hegman Value | ASTM D1210-79 | 4.0 |
| Specific Surface Area (m ² /g) | m ² /g | 2.88 |
| Brightness | Tappi | 97.0 |
| Color | L | 98.20 |
| | a | -0.03 |
| | b | 0.24 |
| Specific Gravity | g/cc | 2.32 |
| Moisture % | ASTM C-566 | 0.11 |
| Oil Absorption | ASTM D-281 | 23.4 |
| pH | AFS 113-87-S | 9.5 |



LUMINEX C 4 | Technical Advantages

- ▶ > 10 units higher in GE Brightness than conventional ground silica and lower yellowness (b^*). Produces Cleaner colors
- ▶ Low iron and impurities for greater UV resistance than conventional ground silica, clay, GCC fillers, etc.
- ▶ Greater light reflectance for night time visibility and potentially cool roof applications. (SR Testing in Progress)
- ▶ Lower density for more bulking than GCC and conventional fillers
- ▶ TiO_2 Extension opportunities based on resin systems and applications

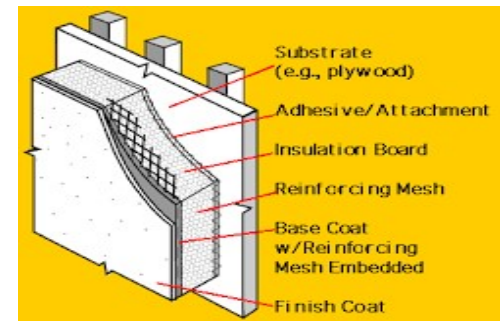
GE BRIGHTNESS OF SILICA TYPES



LUMINEX C | Target Applications

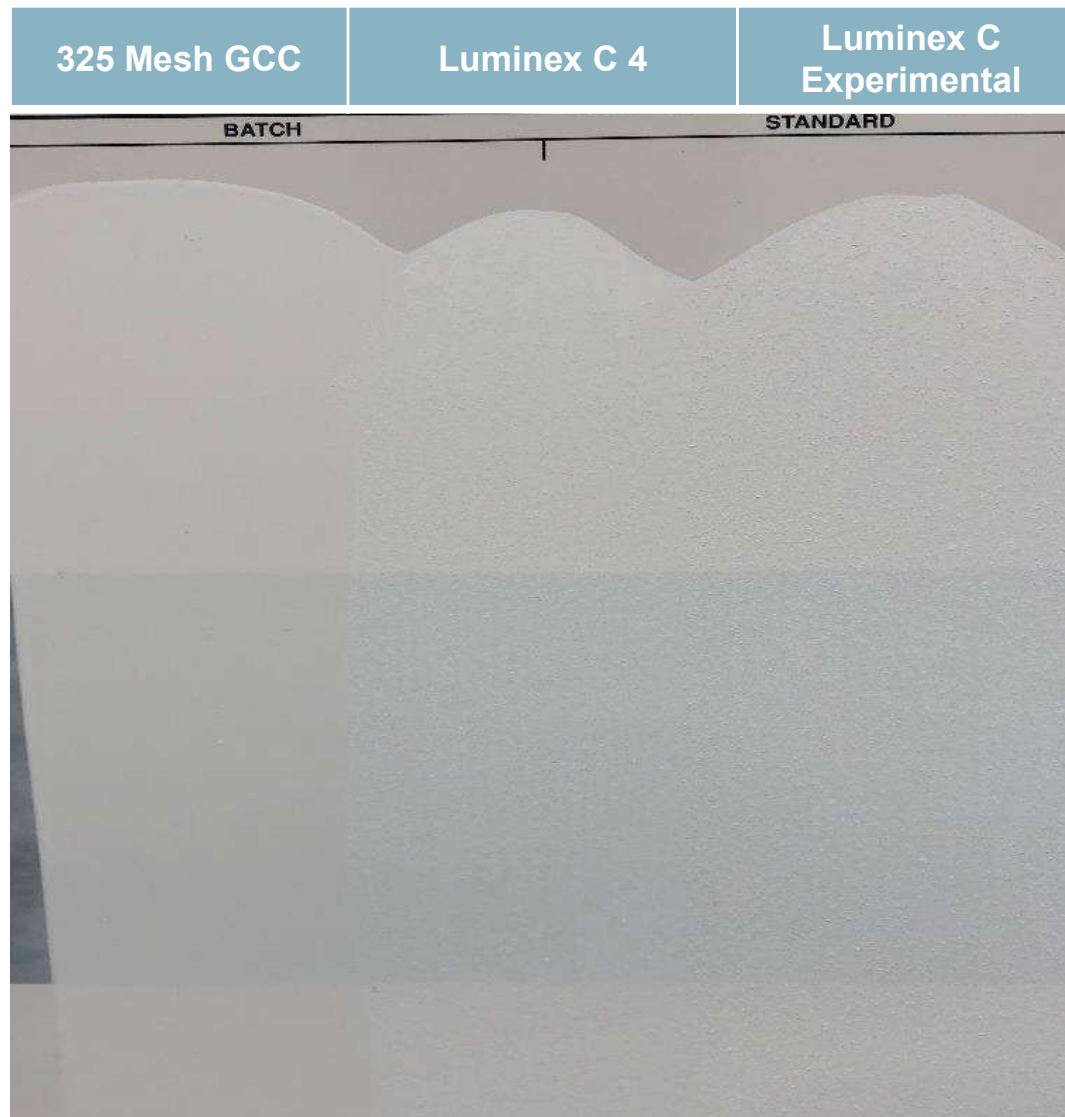
IDEAL APPLICATIONS

- ▶ Roof Coatings
- ▶ High Whiteness EIFS Coatings
- ▶ Whiter and more durable road markings
- ▶ Adhesives, Sealants and Grouts



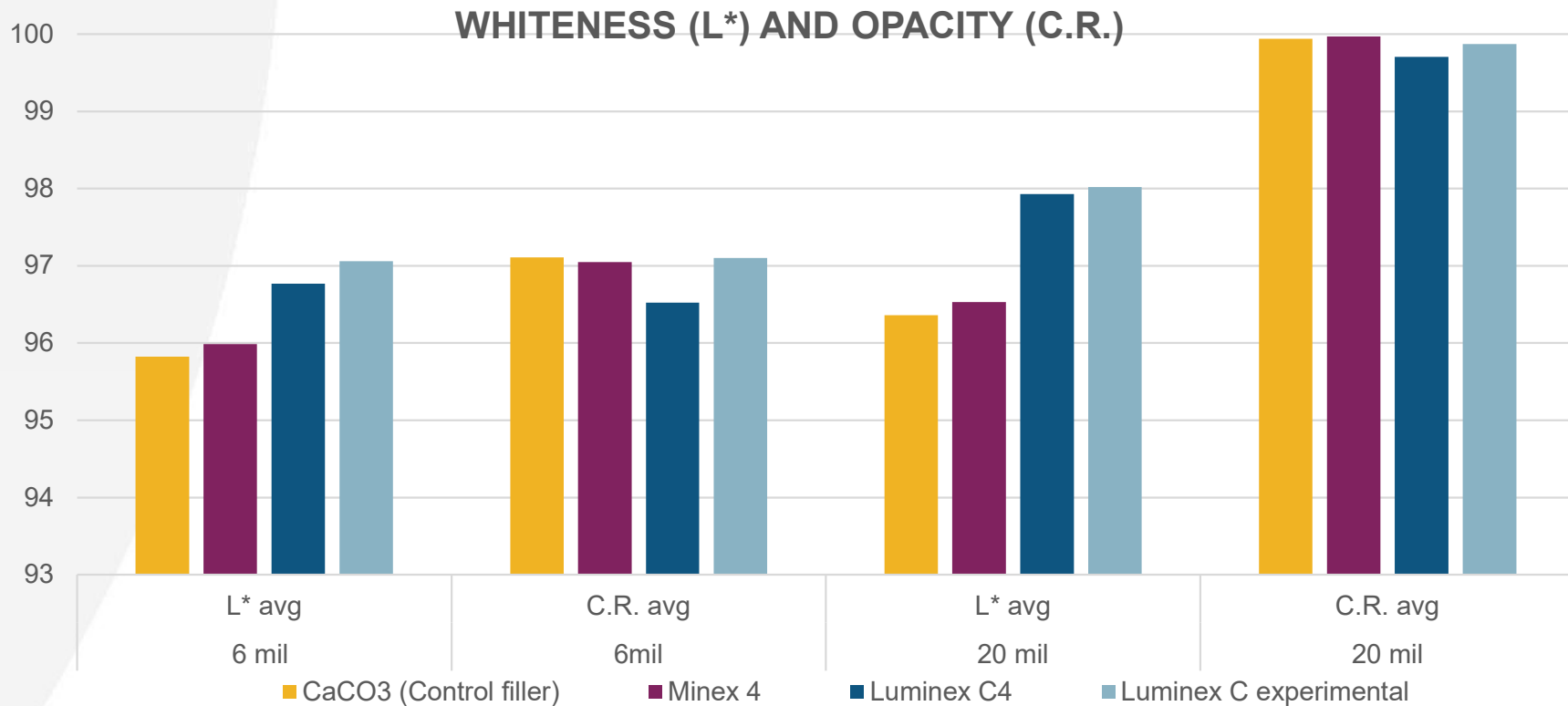
LUMINEX C vs. Caco3 in Cool White Elastomeric Coatings

42% PVC, 85 lbs TiO₂ per 100 gallons, Luminex C (381 lbs) replaced 430 lbs GCC by Vol.



LUMINEX C vs. CaCO_3 in Cool White Elastomeric Roof Coatings

42% PVC, 85 lbs TiO_2 per 100 gallons, Luminex C (381 lbs) replaced 430 lbs GCC by Vol.



Luminex C creates visible and measurable increase in L^* (Whiteness) for higher reflectivity in both thin and thick films. Negligible difference in Opacity at 20 mils wet in TiO_2 starved formulation. Elastomeric roof coatings applied at 40 mils typically.