

CAB-O-SIL® CLARUS™ 3160 Fumed Silica

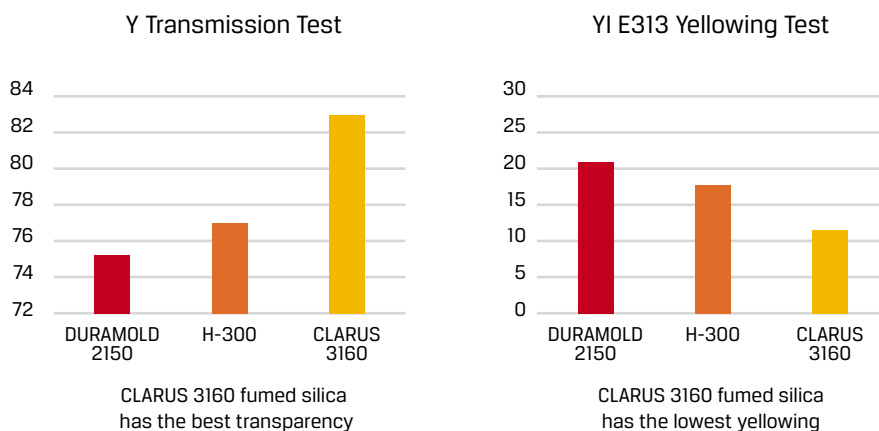


CAB-O-SIL CLARUS 3160 fumed silica is a high-surface area, high-structure fumed silica designed specifically for liquid silicone rubber (LSR) formulations that require elevated mechanical properties coupled with a high level of transparency.

The small aggregate size and primary particle size of CAB-O-SIL CLARUS 3160 fumed silica enable the highest cured Y transmission and lowest yellowing in sample formulations, as can be seen in the figures below. In addition, CAB-O-SIL CLARUS 3160 fumed silica is produced using a proprietary manufacturing process to ensure a high level of cleanliness and consistency that directly benefits transparent liquid silicone rubber compounds by reducing contaminants that can lead to yellowing upon aging.

CAB-O-SIL CLARUS 3160 fumed silica expands what is possible in LSR.

Optical Properties of Selected CAB-O-SIL Products in LSR



NOTES: (1) All data shown are from model formulation after 8-hour post cure at 200C
 (2) Comparison based on Cabot standard density hydrophilic products
 (3) Full dispersion must be reached to achieve optimum performance from CLARUS 3160 fumed silica.
 Customers who have difficulty dispersing high-structure fumed silica should also evaluate H-300 fumed silica.

CAB-O-SIL[®] CLARUS[™] 3160 Fumed Silica

Model Formulation

Formula: Base

COMPONENT	WEIGHT (%)	WEIGHT (G)
10,000 cP Vinyl PDMS	55.94	1000
Fumed Silica (BET400)	33.57	600
HMDZ	8.39	150
Water	2.10	37.5
Total	100	1787.5

Letdown

COMPONENT	WEIGHT (%)	WEIGHT (G)
10,000 cP Vinyl PDMS	18.58	111.48
300 cP Vinyl PDMS	5.24	31.44
Base	76.18	457.08
Total	100	600

Fumed silica loading = 28.6%

Cure

COMPONENT	WEIGHT (%)	WEIGHT (G)
Compound	99.01	150
H-oil (1.5%)	0.73	1.1
Pt-catalyst	0.26	0.4
Inhibitor	A/R	A/R
Total	100	151.5

Temperature: 150°C

Time: 500 Sec

Typical Properties

BET Surface Area	370-430 m ² /g
pH (4% Aqueous Slurry)	3.8-4.3
325 Mesh Residue (44 microns)	0.02% max
Loss on Heating	1.5% max (at time of packaging)
X-ray	Amorphous

Packaging Options

CAB-O-SIL CLARUS 3160 fumed silica is packaged in 10 kg multi-wall Kraft paper bags and is available in poly-shrouded units containing 18 x 10 kg paper bags (180 kg net weight). CAB-O-SIL CLARUS 3160 fumed silica is also available in flexible intermediate bulk containers (FIBCs).

Specific information regarding standard and custom packaging may be obtained by contacting a sales service representative at the Cabot Corporation office in your region.

Product Sales Specifications

Sales specifications for CAB-O-SIL CLARUS 3160 fumed silica may be obtained by contacting a sales or technical service manager at the Cabot Corporation office in your region.

Material Safety Data Sheet

A Material Safety Data Sheet (MSDS) for this product may be obtained by contacting the Cabot Corporation office in your region or can be downloaded from cabotcorp.com.



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