

# SPECIALTY SILICONE COMPONENTS LINE



PRODUCT GUIDE

## FREEDOM TO FORMULATE

NuSil™ specialty polymers and finished systems are high purity components specifically made for formulators to create unique silicone compounds.

### Functional Polymers and Curing Components

We offer a variety of functional silicone polymers for formulating addition cure silicones and block co-polymer components.

### Finished Systems

Our Finished Systems help decrease time to market by providing a complete two-part kit with little formulating required.

### Additional Products

If you don't find what you are looking for, we have many additional products in our formulation library and can customize infinitely more based on your unique requirements. For the complete range of products, please visit:

[www.nusil.com/specialtysiliconecomponents](http://www.nusil.com/specialtysiliconecomponents)



## SPECIALTY FUNCTIONAL SILOXANE POLYMERS

### HYDRIDE FUNCTIONAL SILOXANE POLYMERS

PRODUCT NUMBER	REFRACTIVE INDEX @ 589nm	VISCOSITY	mmol H/g	PRODUCT DESCRIPTIONS
XL-110	1.40	4 cSt	7.0	Pendant Hydride Functional, Crosslinker.
XL-112	1.40	40 cSt	6.5	Pendant Hydride Functional, Crosslinker.
XL-115	1.40	50 cSt	4.2	Pendant Hydride Functional, Crosslinker.
XL-103	1.40	125 cSt	0.15	Pendant Hydride Functional, Crosslinker.
XL-7505	1.40	500 cP	0.16	Terminal Hydride Functional Chain Extender.

### VINYL FUNCTIONAL SILOXANE POLYMERS

PRODUCT NUMBER	REFRACTIVE INDEX @ 589nm	VISCOSITY	mmol Vi/g	PRODUCT DESCRIPTIONS
<b>DIMETHYL POLYMER</b>				
PLY-7500 (Series)	1.40	500 - 50,000 cP	0.03 - 0.15	Vinyl Terminated Dimethyl Polymer.
PLY-7511	1.41	1,000 cSt	1.10	Vinyl Terminated Pendant Methylvinyl, Dimethyl, Copolymer.

<b>PHENYL POLYMER</b>				
PLY-7560 (Series)	1.43	500 - 50,000 cP	0.06 - 0.22	Vinyl Terminated Phenyl Copolymer.
PLY-7666	1.46	1,525 cSt	0.16	Vinyl Terminated Phenyl Copolymer.
PLY-7665	1.52	560 cSt	0.80	Vinyl Terminated Phenyl Copolymer.
CF-4721	1.52	125 cP	4.70	MTD Silicone Resin.

<b>FLUORO POLYMER</b>				
PLY-7580 (Series)	1.38	1,000 - 100,000 cP	0.06 - 0.47	Vinyl Terminated 100mol% Fluoro.

## CURING COMPONENTS

### PLATINUM CATALYST FOR ADDITION CURE REACTIONS

PRODUCT NUMBER	REFRACTIVE INDEX @ 589nm	% Pt	APPEARANCE	PRODUCT DESCRIPTIONS
CAT-7717	1.41	4.1	CLEAR TO LIGHT AMBER	Ashby Catalyst, tetravinyltetramethylcyclotetrasiloxane complex.
CAT-50	1.41	2.5	CLEAR TO LIGHT AMBER	Karstedt Catalyst, Platinum-divinyltetramethylsiloxane complex.
CAT-53	1.52	2.0	CLEAR TO LIGHT AMBER	Karstedt Catalyst, Platinum-divinyltetramethylsiloxane complex.

### PEROXIDE CATALYST

PRODUCT NUMBER	VISCOSITY	APPEARANCE	PRODUCT DESCRIPTIONS
CAT-101	N/A	CLEAR	Lupersol - Vinyl specific peroxide catalyst.
CAT-102	PASTE	OFF-WHITE	Perkadox PD505-Non-Vinyl Specific Peroxide Catalyst.

### INHIBITORS

PRODUCT NUMBER	MINIMUM CURE TEMPERATURE	PRODUCT DESCRIPTIONS
XL-119	AMBIENT	Competitive inhibitor.
XL-128	> 70° C	Methyl Butynol (MeBuOH). Fugitive inhibitor for controlling work time of addition cure silicones.
CAT-41	> 120° C	Ethynyl Cyclohexanol (ETCH). Fugitive inhibitor for controlling work time of addition cure silicones.

## NON-FUNCTIONAL SILOXANE POLYMERS

### NON-FUNCTIONAL SILOXANE POLYMERS

PRODUCT NUMBER	REFRACTIVE INDEX @ 589nm	VISCOSITY cP (mPa-sec)	PRODUCT DESCRIPTIONS
FS-3600 (Series)	1.38	1,000 - 20,000	Trimethyl Terminated 100mol% fluoro. Various mol% Fluoros available.
S-7200 (Series)	1.41	350 - 12,500	Trimethyl Terminated Dimethylsiloxane.
CV-7300 (Series)	1.41	1,000 - 100,000	Trimethyl Terminated Low Outgassing Dimethylsiloxane.
S-7400 (Series)	1.43	400 - 1,000,000	Trimethyl Terminated Diphenyl Dimethyl Copolymer.

## FINISHED SYSTEMS

### CLEAR ELASTOMERS (1.41 RI)

PRODUCT NUMBER	VISCOSITY cP (mPa-sec)	DUROMETER TYPE A	TENSILE psi (MPa)	ELONGATION %	WORK TIME	PRODUCT DESCRIPTIONS
CF19-2615	1,050	30	120 (0.9)	94	4 h	Clear. Self-leveling.
EPM-2420	2,600	30	425 (2.9)	152	2 h	Low volatility. Self-leveling binder for a variety of different types of fillers. Compatible with Platinum catalyzed systems.
EPM-2421	3,225	50	850 (5.9)	102	3 h	Low volatility. Self-leveling binder for a variety of different types of fillers. Compatible with Platinum catalyzed systems.

### GELS

PRODUCT NUMBER	REFRACTIVE INDEX @ 589nm	VISCOSITY cP (mPa-sec)	PENETRATION (mm)* DUROMETER	WORK TIME	PRODUCT DESCRIPTIONS
<b>DIMETHYL GELS</b>					
GEL-8150	1.40	500	5 mm	4 h	Soft.
GEL8-8150	1.40	500	4 mm	1.5 h	Soft. Able to RTV.
GEL-8100	1.40	525	10 mm	> 24 h	Soft. Flows when cured.
GEL-8136	1.40	450	14 mm	N/A	High surface tack.
GEL-8170	1.40	600	9 mm	N/A	Soft. Medium tack.
GEL1-8155	1.40	14,500	0.4 mm	N/A	Firm. Medium tack.
EPM-2480	1.40	2,500	4 mm	> 30 h	Low volatility. Soft. High tack.

<b>PHENYL GELS</b>					
GEL-8250	1.43	650	5 mm	2 h	Recommended for extreme operating temperatures.
LS-3246	1.46	1,000	10 (00)	8 h	Low permeability binders.
LS-3252	1.52	425	65 (000)	N/A	Low permeability binders.
LS-3354	1.54	5,000	65 (000)	1.5 h	Low permeability binders.

All materials are Platinum cure  
\*See Data Sheets for test parameter details

h = hours

It is the sole responsibility of each purchaser to ensure that any use of these materials is safe and complies with all applicable laws and regulations. These are typical values and not to be used as specifications. It is the user's responsibility to adequately test and determine the safety and suitability for their applications and NuSil Technology LLC makes no warranty concerning fitness for any use or purpose.

#### Headquarters

Avantor Performance Materials, LLC  
3477 Corporate Parkway  
Center Valley, PA 18034 USA  
Toll Free: +1 855-AVANTOR (1-855-282-6867)  
Outside of US Tel: +1 610-573-2600  
www.avantorinc.com

#### North & South America

1050 Cindy Lane  
Carpinteria, CA 93013 USA  
+1 805-684-8780  
silicone@nusil.com  
www.nusil.com

#### Europe

Parc d'Activités de Sophia Antipolis  
Le Natura Bt2  
1198, avenue Maurice Donat  
06250 MOUGINS France  
+33 (0) 4 92 96 93 31  
nusil.sophia@nusil.com  
www.nusil.com

#### Asia

10 Anson Road  
#32-15 International Plaza  
Singapore 079903  
+65 64306694  
nusilasia@nusil.com  
www.nusil.com



## CUSTOMIZATION MASTERED 3,000+ STANDARD PRODUCTS AND BEYOND

We know that standard solutions don't always fit. That's why we create customized products based on our customers' unique applications. And after three decades serving the most demanding industries, we've honed our processes and proprietary equipment to take customization to a mass scale.

Today, we have over 3,000 standard products that can easily be mass customized to your precise, unique specifications. Whether you require boutique creations or mass-market offerings, we are committed to creating your products, your way.

[www.nusil.com/customization](http://www.nusil.com/customization)

It is the sole responsibility of each purchaser to ensure that any use of these materials is safe and complies with all applicable laws and regulations. It is the user's responsibility to adequately test and determine the safety and suitability for their applications and NuSil Technology LLC makes no warranty concerning fitness for any use or purpose.  
May 10, 2017. © NuSil Technology LLC