

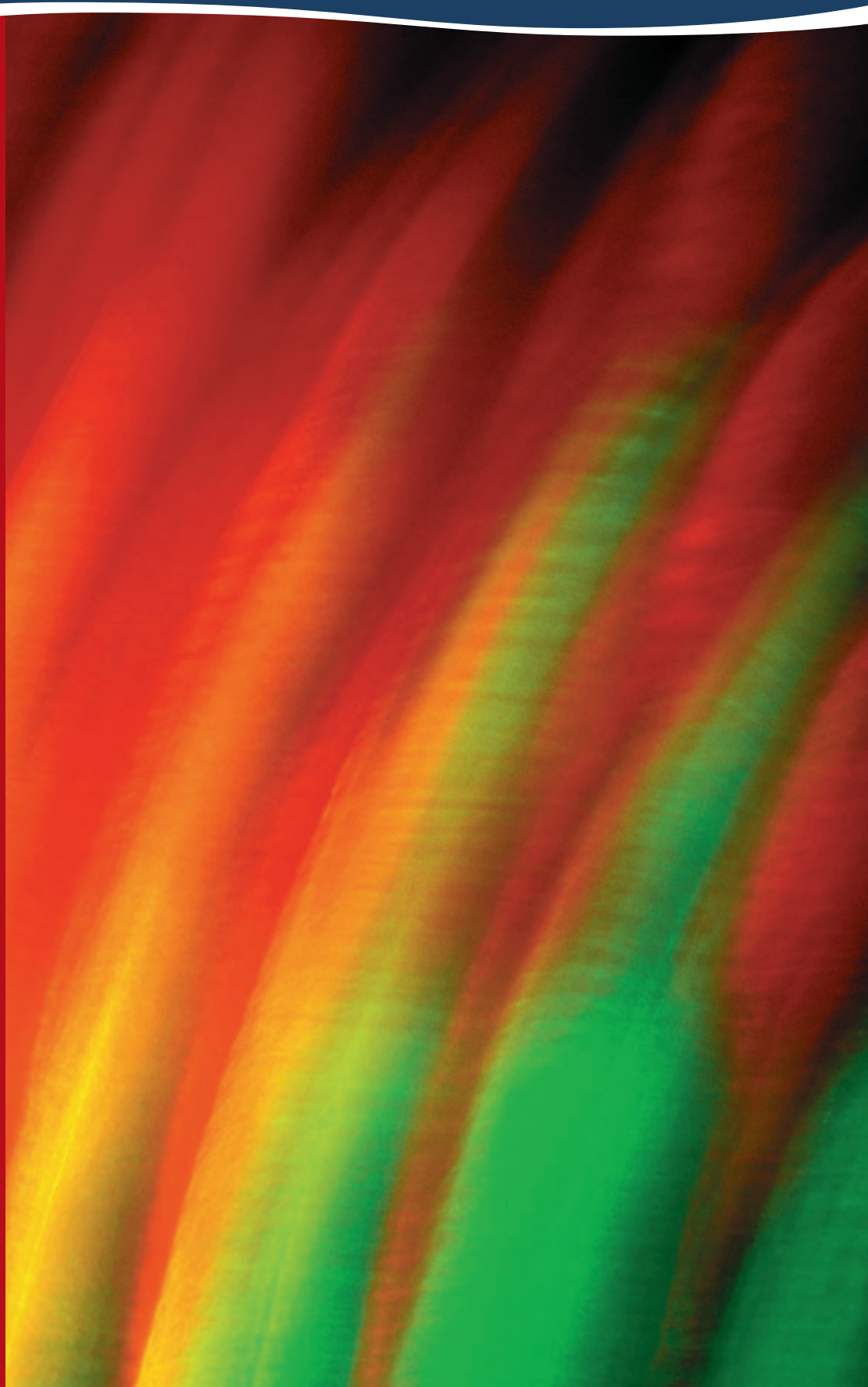


STAN-TONE™ SMB COLORS

- **Description:** Selected organic and inorganic pigments dispersed in a silicone elastomer.
- **Binder:** Polydimethyl silicone elastomer gum.
- **Product Form:** Cuttable masterbatch (mass or various size slabs).
- **Application/End Use:** Mechanical seals, key pads, gaskets, wire & cable, airbags, etc.

Typical recommended use level: 1.0% – 5.0% by weight.

- **Standard Packaging:** Polyethylene-lined 50-lb. cartons.
- **Shelf Life:** Typically 3 months from the date of manufacture when stored under proper conditions in the original sealed container.
- **Order Size/Sample Size:** Minimum order: 100 pounds. 1/2-pint sample available upon request.



STAN-TONE CODE	PIGMENT TYPE	APPROX. % PIGMENT	SPECIFIC GRAVITY	COLOR INDEX	HEAT STABILITY	LIGHTFASTNESS
WHITE						
10SMB03	Titanium Dioxide, Rutile	75.0	2.26	PW-6	1	I/O
YELLOW						
13SMB02	Isoindolinone, RS	25.0	1.35	PY-110	1	I/O
13SMB03	Benzimidazolone GS	23.0	1.34	PY-151	2	I/O (Mass)
81SMB01	Iron Oxide	75.0	2.27	PY-42	2 C	I/O
81SMB03 (a)	Ceramic (Cr, Sb, Ti)	65.0	2.30	PY-24	1	I/O
ORANGE						
15SMB03	Benzimidazolone RS	40.0	1.30	PO-36	2	I/O
15SMB05	Azo YS	12.0	1.31	PO-64	2	I/O
RED						
23SMB04	Quinacridone BS	19.0	1.31	PV-19	2	I/O
23SMB05	Quinacridone YS	15.0	1.29	PV-19	2	I/O
23SMB06	Specialty Naphthol BS	50.0	1.20	PR-170	2	I/O (Mass) C
23SMB07	Specialty Naphthol YS	50.0	1.22	PR-170	2	I/O (Mass) C
82SMB01	Iron Oxide, Light BS	75.0	2.47	PR-101	1	I/O
82SMB02	Iron Oxide, Dark VBS	75.0	2.49	PR-101	1	I/O
82SMB04	Iron Oxide, Light VYS	75.0	2.47	PR-101	1	I/O
BLUE						
40SMB03	Phthalocyanine GS	40.0	1.58	PB-15:3	1	I/O
40SMB10	Phthalocyanine RS-NC	40.0	1.46	PB-15:1	1	I/O
42SMB02 (b,c)	Ultramarine	65.0	1.63	PB-29	1	I/O

KEY

- RS = RED SHADE
- YS = YELLOW SHADE
- VYS = VERY YELLOW SHADE
- BS = BLUE SHADE
- VBS = VERY BLUE SHADE
- GS = GREEN SHADE
- NC = NON-CRYSTALLIZING
- HR = HEAT-RESISTANT
- (a) = CONTAINS HEAVY METAL
- (b) = MAY ADVERSELY AFFECT CURES/
CATALYST SYSTEMS
- (c) = ULTRAMARINE PIGMENT WILL FADE
IN ACIDIC CONDITIONS

LIGHTFASTNESS

- I = INDOOR ONLY
- I/O = INDOOR OR OUTDOOR
- MASS = OUTDOOR MASSTONE
APPLICATION ONLY
- C = SOME CAUTION ADVISED

HEAT STABILITY

- 1 = ABOVE 400°F
- 2 = BELOW 400°F
- C = SOME CAUTION ADVISED

STAN-TONE™ COLORANTS FOR SILICONE ELASTOMERS

Silicone elastomers are comprised of different types: thermoset gum rubber, one- and two-component RTV systems, and two-part LIM systems. Selection of a colorant must be made to meet the individual requirements of a specific type.

THERMOSET GUM RUBBER

Typically based on linear fluids or gums with fillers and cured with organic peroxides, thermoset gum rubbers are processed on conventional rubber-processing equipment (2-roll mill, internal mixer, extruder). Thermoset gums are used for a wide variety of applications, typically using conventional fabrication methods such as compression, injection, extrusion and transfer molding. The cure time and temperature, post-cure, and end-use requirements are all factors in selection of pigments.

Thermoset gums typically use the colorants in masterbatch, SMB form for ease of handling, especially for 2-roll open-mill mixing. There are also colorants available in the form of high-viscosity pastes for use in various thermoset applications.

Stan-Tone™ SMB colors are based on a silicone gum binder system. A wide range of high-temperature organic and inorganic pigments are available. Refer to PolyOne's Stan-Tone™ FDA Silicone Paste Colors (FSP) brochure for further details. In addition, high-viscosity Stan-Tone™ SP (silicone paste) colors can be utilized in gum formulations.

STAN-TONE CODE	PIGMENT TYPE	APPROX. % PIGMENT	SPECIFIC GRAVITY	COLOR INDEX	HEAT STABILITY	LIGHTFASTNESS
GREEN						
50SMB01	Phthalocyanine BS	40.0	1.63	PG-7	1	I/O
50SMB03	Phthalocyanine YS	40.0	1.64	PG-7	1	I/O
50SMB05	Phthalocyanine VYS	40.0	1.84	PG-36	1	I/O
59SMB01 (a)	Chromium Oxide	75.0	2.51	PG-17	1	I/O
VIOLET/MAGENTA						
24SMB03	Quinacridone	19.0	1.33	PV-19	2	I/O
24SMB04 (b,c)	Ultramarine	65.0	1.72	PV-15	1	I/O
BROWN/TAN						
83SMB01	Iron Oxide, Tan HR	65.0	1.98	PBr-11	1	I/O
BLACK						
90SMB04 (b)	Furnace	40.0	1.29	PBk-7	1	I/O
90SMB06	Iron Oxide	65.0	2.31	PBk-11	2 C	I/O
90SMB07	Thermal	65.0	1.39	PBk-7	1	I/O
90SMB09 (a)	Ceramic (Cu, Cr)	75.0	2.52	PBk-28	1	I/O
ALUMINUM						
60SMB00	Aluminum	50.0	1.53	PM-1	1	I/O

RTV COMPOUNDS

The RTVs are most commonly used for sealants and caulks. There are two types: one-component moisture cured systems and two-component systems. PolyOne Stan-Tone™ SP (silicone paste) colors offer a standard line of single pigments dispersed in a low-viscosity dimethyl fluid. They can be modified to have varying viscosities from fluid pourable to thick putty. PolyOne is exceptional at providing the customer custom-blended multipigment colors. Since the RTVs cure at room temperature, the selection of suitable pigments is much greater, giving the compounder more flexibility.

Refer to PolyOne's Stan-Tone™ Silicone Paste Colors (SP) brochure for further details.

LIM SYSTEM

The LIM system consists of two pumpable components with a platinum catalyst to speed up the cure. The colorant and other additives are often added via a third mixing head. The colorant must be pumpable and nonsettling. PolyOne offers custom-made colors using a vinyl-terminated reactive silicone especially suited for LIM systems. Pigments containing residual sulfur should be avoided because they can interfere with the platinum catalyst. Many of the applications require nontoxic pigments (examples include facemasks, baby bottle nipples, medical prostheses).

GENERAL INFORMATION

PolyOne surpasses at finding the best solution to meet the performance requirements with the most economical pigment system.

PolyOne has a minimum order quantity of 5 gallons for paste (40-65 pounds) and 100 pounds for SMBs.

PolyOne colorants can be selected to meet any or all of the following characteristics:

- Indoor or outdoor lightfastness
- Heat stability – time and temperature
- Toxicity – toy, medical, food, cosmetics, etc.
- Heavy metal replacement
- Chemical resistance
- Ease of dispersion
- Optimum economics



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Stan-Tone™ colorants are manufactured at PolyOne's state-of-the-art facility located in Massillon, Ohio. For more information, call 1-866-POLYONE or e-mail us via our Web site at www.polyone.com.



At PolyOne, we deliver premium-quality products and services, which our customers use to enhance their own products. We believe no competitor can match our technical expertise because no workforce can outperform the people of PolyOne. Our people are ONE team working together – our strength and our pride. Their skills, passion and dedication are shaping a potent industry leader, a concerned corporate citizen and a great place to work.

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