



SILICONE PASTE COLORS (SP)

STAN-TONE™ COLORS

STAN-TONE™ SP COLORS

- **Description:** Selected organic and inorganic pigments dispersed in a silicone fluid.
- **Carrier:** Nonreactive polydimethyl siloxane fluid.
- **Product Form:** Liquid to paste (varying viscosity).
- **Application/End Use:** Sealants, adhesives, caulks, gaskets, wire & cable, etc.

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

- **Standard Packaging:** 5-gallon plastic pail, 30-gallon fiber drum, 55-gallon steel drum.
- **Shelf Life:** Typically one year from the date of manufacture when stored under proper conditions in the original sealed container. Mix prior to use.
- **Order Size/Sample Size:** Minimum order: 5-gallon pail. 1/2-pint sample available upon request.

STAN-TONE CODE	PIGMENT TYPE	APPROX. % PIGMENT	SPECIFIC GRAVITY	COLOR INDEX	HEAT STABILITY	LIGHTFASTNESS
WHITE						
10SP03	Titanium Dioxide, Rutile	75.0	2.25	PW-6	1	I/O
YELLOW						
12SP03	Diarylide HR RS	20.0	1.03	PY-83	2	I/O (Mass)
13SP02	Isoindolinone RS	25.0	1.10	PY-110	1	I/O
13SP03	Benzimidazolone GS	25.0	1.06	PY-151	2	I/O (Mass)
30SP01 (a)	Primrose Chrome GS	70.0	2.30	PY-34	2	I/O C
30SP03 (a)	Medium Chrome RS	70.0	2.31	PY-34	2	I/O C
81SP01	Iron Oxide	65.0	1.92	PY-42	2 C	I/O
81SP03	Ceramic	60.0	1.84	PY-24	1	I/O
ORANGE						
15SP01 (a)	Molybdate YS	70.0	2.28	PR-104	2	I/O C
15SP03	Benzimidazolone RS	35.0	1.12	PO-36	2	I/O
15SP05	Azo	25.0	1.08	PO-64	2	I/O
RED						
23SP04	Quinacridone BS	25.0	1.05	PV-19	2	I/O
23SP05	Quinacridone YS	25.0	1.06	PV-19	2	I/O
23SP06	Specialty Naphthol BS	30.0	1.06	PR-170	2	I/O (Mass) C
23SP07	Specialty Naphthol YS	30.0	1.07	PR-170	2	I/O (Mass) C
23SP08	Diketo-Pyrrolo-Pyrrol YS	25.0	1.07	PR-254	1	I/O
82SP00	Iron Oxide, Light YS	75.0	2.45	PR-101	1	I/O
82SP01	Iron Oxide, Light BS	75.0	2.45	PR-101	1	I/O
82SP02	Iron Oxide, Dark VBS	75.0	2.47	PR-101	1	I/O
82SP04	Iron Oxide, Light VYS	75.0	2.45	PR-101	1	I/O

STAN-TONE™ COLORANTS FOR SILICONE ELASTOMERS

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

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.

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).

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) = HEAVY METAL PIGMENT
- (b) = FURNACE BLACK MIGHT INTERFERE WITH PEROXIDE CURE SYSTEMS

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 = 350°F - 400°F
- 3 = BELOW 350°F
- C = SOME CAUTION ADVISED

STAN-TONE CODE	PIGMENT TYPE	APPROX. % PIGMENT	SPECIFIC GRAVITY	COLOR INDEX	HEAT STABILITY	LIGHTFASTNESS
BLUE						
40SP03	Phthalocyanine GS	40.0	1.15	PB-15:3	1	I/O
40SP10	Phthalocyanine RS-NC	30.0	1.09	PB-15:1	1	I/O
42SP02	Ultramarine	60.0	1.49	PB-29	1	I/O
49SP01	Cobalt	60.0	1.82	PB-28	1	I/O
GREEN						
50SP01	Phthalocyanine BS	40.0	1.24	PG-7	1	I/O
50SP05	Phthalo Brominated VYS	30.0	1.20	PG-36	1	I/O
59SP01 (a)	Chromium Oxide	75.0	2.50	PG-17	1	I/O
VIOLET/MAGENTA						
24SP02	Carbazole Violet	25.0	1.07	PV-23	2	I/O
24SP03	Quinacridone Violet	25.0	1.06	PV-19	2	I/O
24SP04	Ultramarine Violet	60.0	1.62	PV-15	1	I/O
24SP05	Quinacridone Magenta	25.0	1.06	PR-122	2	I/O
24SP06	Benzimidazolone	25.0	1.05	PV-32	2	I/O
BROWN/TAN						
83SP01	Iron Oxide, Tan HR	60.0	1.82	PBr-11	2 C	I/O
BLACK						
90SP04 (b)	Furnace – Medium	25.0	1.10	PBk-7	1	I/O
90SP06	Iron Oxide	56.0	1.74	PBk-11	2 C	I/O
90SP07	Thermal Black	65.0	1.39	PBk-7	1	I/O
90SP09	Ceramic (CrCu Oxide)	75.0	2.51	PBk-28	1	I/O

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™ Silicone Gum Rubber Colors (SMB) and FDA Silicone Paste Colors (FSP) brochures for further details. In addition, high-viscosity Stan-Tone™ SP (silicone paste) colors can be utilized in gum formulations.

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 (40-65 pounds).

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.