

# Product name SHARPIE Firefly Caulk

SRC1-06

SHARPIE Firefly Caulk including phosphorescent pigment is suitable for evacuation guidance because of the phosphorescence in case of blackout.

Before curing, it is a pasty material, therefore it is cured as many shapes.

Based on silicone sealant with good performance for construction use.

Able to apply as a sealant for outdoor use.

## ■Advantages

- ◇Phosphorescent function.  
Immediately produce light while blackout!
- ◇Keep phosphorescence for long.  
Apply it thickly, luminate better.
- ◇Pasty in the first stage, Shaped as wish.
- ◇Apply as a sealant for outdoor

## ■Application

- Evacuation guidance-cum-Sealant for buildings
- Guidance for corridors and stairs while lights-out
- Joint sealant of emergency exit
- Guidance of the light switch plate
- healing light at light-out or bedtime
- Design display of the use of black lights.

## ■Characterization

### · General

Product name:	SHARPIE Firefly Caulk
Product code	SRC1-06
Main component:	Silicone polymer
Class(JIS):	—
Consistency:	Paste
Color	luminescence
Storage	12Months
Viscosity(Pa · s)	500 ; 23°C
Operation temperature	5°C ~ 35°C
Application temperature	-50°C ~ 150°C
Paintability	N/A

### · Curing properties

Curing condition	Thickness of skin forming(Days)			
	2mm	5mm	10mm	15mm
5°C*50%RH	2	>6	—	—
23°C*50%RH	1.5	2	6	—
50°C*50%RH	0.5	1	3	6

### · Cured properties(JIS K 6251 Dumbbel-3)

50% Tensile stress (N/mm <sup>2</sup> )	0.43
Maximum tensile stress (N/mm <sup>2</sup> )	1.05
Elongation at break ( % )	250
Hardness (Shore A)	27

### · Base on JIS A 5758 or JIS A 1439

Density (g / ml )	1.02
Tack-free time (min.)	23°C 10
Extrudability (sec)	23°C 3
Nonvolatile (%)	97



### · Tensile Properties

Cure condition \ Item	Test condition	50% Tensile stress (N/mm <sup>2</sup> )	Maximum tensile stress (N/mm <sup>2</sup> )	Elongation at break (%)
After curing	23°C	0.43	0.82	150
After heating ( 80°C )	23°C	0.44	0.79	150
After immersion in water	23°C	0.42	0.75	130

No primer

Substrate : Aluminum



## Recommend primer

Recommnd substrates	Product name	Note
Concrete, mortar	SHARPIE Primer P-15	main solvent ; butyl acetate
Coated Metal, Glass, Plastic	SHARPIE Primer P-16	main solvent ; acetone

## Afterglow brightness

Time after light exposure (min.)	1	5	10	20	30	60	90	120	180	360	600
Standard	649	285	172	88	56	27	15	12	7	3	2
After artificial light exposure	646	282	170	86	54	25	15	11	6	2	1

unit: mcd/m2

Test condition

### 1. Specimen

(before the test, the protection from light 24hrs.)

sheet size : 75\*75\*3mm

standard : 7days curing,

Artificial light exposure: 600h treatment

(weathermeter using 313nm peak wavelength)

### 2. Conditions

Equipment :LS-100 Luminance Meter, KONICA-MINOLTA

Temperature/humidity : 25°C, 60%

Light source : D65

Irradiation time : 20min.

Measuring angle : 90°

Excitation light : 200lx

Measuring area φ1.5mm

Focusing distance : 0.2m

## <reference>

### 1)numerical value and feeling of brightness

Brightness (mcd/m2)	Feeling brightness in the dark	Observable	Unobservable
More than 5	Very blight! able to perceive by sight!	10/10men	0/10men
3	So blight, able to perceive the contour	10/10men	0/10men
2	Faded bright, hard to perceive by sight	10/10men	0/10men
Less than 1	Hard to perceive bright itself!	3/10men	7/10men

### 2)JIS Z 9107-2008 Safety mark

Brightness (unit : mcd/m2)

Excitation light : irradiation of 20min. with 200lx

Sub class	After 2min.	After 10min.	After 20min.	After 30min.	After 60min.
JA	210	50	24	15	7
JB	440	105	50	31	15
JC	880	210	100	62	30
JD	1760	420	200	124	60

## Usage amount

The length(m) of sealant operation per a 330ml cartridge

D \ W	10mm	15mm	20mm	25mm	30mm
	10mm	2.6	1.8	1.3	
15mm			0.9	0.7	0.6

Loss rate 20%

W: width.

D: depth.

The length(m) of primer operation per a 300g can

D \ W	10mm	15mm	20mm	25mm	30mm
	10mm	105	105	105	
15mm			70	70	70

Loss rate 30%

W: width.

D: depth.

Porous surface (concrete): about half length of non-porous surface.





## ■How to use

Please operate the product according to following procedure

- |  |  |
|--|--|
| ①.Pre-study and preparation                        | ⑦.Load the sealant into a caulking gun |
| ②.Pre-check  | ⑧.Apply                                |
| ③.Seam/surface dust free and dried                 | ⑨.Use a spatula to finish the joint.   |
| ④.Setup holder and accessories                     | ⑩.Remove the masking tape              |
| ⑤.Setup the masking tape                           | ⑪.Clear up around                      |
| ⑥.Apply primer (Primer tack-off time : 30min/20°C) | ⑫.Check the operation                  |

## ■Notice

- The surfaces to be bonded must be dry, free of oil, dust, grease and other contaminants.
- NO operation when it rains or snows.
- Outdoor using might happen surroundings of sealing stain.
- Porous substrate might happen sealing stain.
- Do not apply with PS-2, PU-2, PU-1 type in the same time. Curing inhibition!
- NO movement, before cure finishing. Liner Cracks maybe occur on the surface!
- If be covered with dust, light is weak.
- Phosphorescence while blackout is according to the thickness and light exposure period.
- CAN NOT painted on. Paint repellent!

## ■Attention

- Keep away from heat/sparks/static electricity/open flames/hot surfaces. No smoking.
- Because MEKO gas is generated, ventilate it during use enough.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Avoid release to the environment.
- IF SWALLOWED: Rinse mouth.
- IF skin or eye contact occurs immediately flush with water for 15 minutes. And call a POISON CENTER or doctor/physician.
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Keep out of reach of children
- Construction, Industrial use ONLY
- Storage in a dark cold place. Keep away from sunshine.
- See SDS for detailed description.

## ■Packaging

- Sealant SHARPIE Firefly caulk . . . . 330ml cartridge x10 /box  
◇ color : luminence
- Primer SHARPIE Primer P-15 . . . . 300g /can  
SHARPIE Primer P-16 . . . . 300g /can

★The data above, due to different materials and conditions of application which are beyond our knowledge and control we strongly recommend carrying out sufficient tests in order to ensure that our products are suitable for the intended process and applications. Except for wilful acts any liability based on such recommendations or any oral advice is hereby expressly excluded.



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