

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.



