

Product name

SHARPIE™ Burn Hard One

MSC1-59

- ✦ SHARPIE™ Burn Hard One is a UL94 V-0 grade equivalented Fire Resistant one component modified silicone sealant.
- ✦ Good weatherability and durability, suitable for both exterior and interior use.
- ✦ High modulus type compatible with various joints design and materials.
- ✦ Low VOC, Tin Catalyst-Free formulation. Friendly to people and the environment.
- ✦ Great paintability.
- ✦ Tacky free surface, less dirt pick.

◇ **Application**

- General exterior/interior construction joint that requires flame resistant performance
- Joints of wall panels/boards/roof materials/ metal panels/ siding boards.
- Repair of cracks of mortar/concrete
- Watertight and Airtight for interior joints

◇ **Characterization**

Product name:	SHARPIE Burn Hard One
Product code	MSC1-59
UL94 Test Grade	V-0 Grade Equivalented
Consistency:	Paste
Storage	12 Months
Viscosity (Pa · s)	
Application Temperature	5°C~35°C
Service Temperature	-20°C~90°C
Paintability	Paintable

Density (g /ml)		1.50	
Tack-free time (min.)	23°C	25	
Nonvolatile (%)		2.7	
Slump (mm)	Vertical	5°C	0
		50°C	0
	Horizontal	5°C	0
		50°C	0
Tensile Stress @M60 (N/mm ²)		23°C	0.37
		-20°C	0.38
Elastic Recovery %			19.4

• Base on JISA 5758 or JISA 1439

◇ **Cured properties** (JIS K 6251 Dumbbell-3)

50% Tensile stress	(N/mm ²)	0.35
Maximum tensile stress	(N/mm ²)	0.98
Elongation at break	(%)	325
Hardness	(shore A)	36

◇ **Tensile Properties**

	Test condition	50% Tensile stress (N/mm ²)	Maximum tensile stress (N/mm ²)	Elongation at max tensile stress(%)	Elongation at break (%)
After curing	23°C	0.41	0.56	160	220
After heating (80°C)	23°C	0.33	0.61	180	240
After immersion in water	23°C	0.37	0.43	150	210

Based on JIS A1439, with primer P-22, Substrate: Aluminum

◇ **Recommend primer**

Recommend substrates	Product name	Note
Coated metal, Concrete, ALC	Sharp Chemical Primer P50, P32, P22	Non-yellowing aging

◇ **Adhesion Properties to various substrates**

Substrates	Curing at 23°C	Substrates	Curing at 23°C
A5052P	○	PC	○
A1050P	○	PPO	○
SUS304	○	PS	○
Copper	○	PET	○
Zinc	○	PBT	×
Brass	○	POM	×
Glass	○	AS	○
Slate	○	PA	○
Mortar	○	PMMA	○
Gypsum Board	○	PP	×
Granite	○	ABS	×
Flexible PVC	○	FRP	○
Rigid PVC	○		

◇ **Usage Amount**

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

The length(m) of sealant operation per 320ml cartridge.

Loss rate 20%
W: width. D: depth.

D \ W	10mm	15mm	20mm	25mm	30mm
10mm	175	175	175		
15mm			116	116	116

The length(m) of primer operation per 500g can.

Loss rate 30%
W: width. D: depth.

◇ **UL94 Vertical Burning Test Result**

Table 1 Description of test specimens

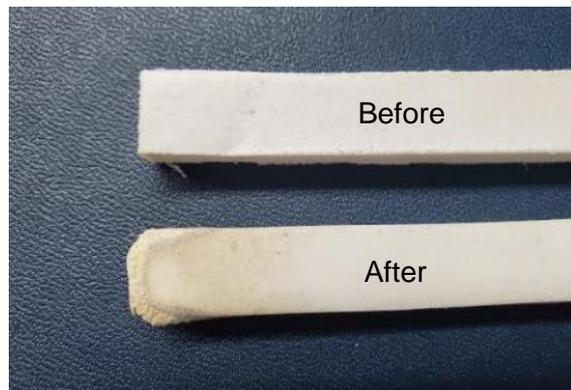
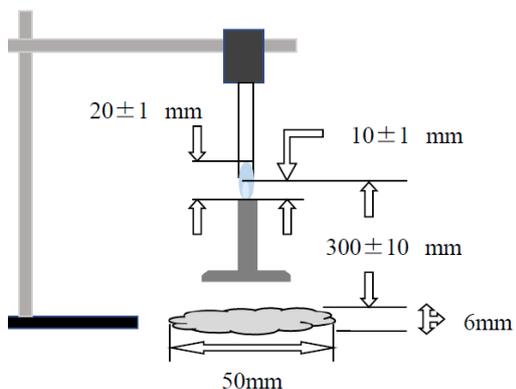
Material Composition	Product Name	Color	Nominal Dimension (mm)	Received on
Silane-Terminated Polymer	Burn Hard 1(MS1-59)	White	125×13.0×10	July 16, 2020

Table 2 Test Method and Conditioning

Test name	Vertical Burning Test(V)
Test and Classification method	UL94 6 th Ed. (2020-06-27), Sec.8
Test Flame	20 mm Blue Flame
Sample conditioning	<p>As Received: Specimens were conditioned in accordance with UL 94 at 23±2°C and 50±10 % relative humidity for a minimum of 48 hours. Once removed from the conditioning chamber, the test specimens shall be tested within 30 min.</p> <p>After Aging Specimens were aged in air-circulating oven for 168±2 hours at 70±2°C and then cooled in the desiccator chamber for at least 4 hours at 23±2°C and maximum 20% relative humidity, prior to testing. Once removed from the desiccator chamber, the test specimens shall be tested within 30min.</p>

Table 3: Test Results

Sample Name	Desired Flame Class	Test Result		Result
		As Received	After Aging	
Burn Hard 1(MS1-59)	V-0	V-0	V-0	Pass



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◇ How to use

- | | |
|---|--|
| ①.Pre-study and preparation | ⑦.Load the sealant into a caulking gun |
| ②.Pre-check | ⑧.Inject the sealant |
| 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.Primer apply (primer tack-offtime : 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.
- Before the operation, wooden corrosion should be removed.
- CAN NOT operating on asphalt.
- NO application on the surface which contained volatile.
- DO NOT operate too thin.
- CAN NOT adhere to marble and glass.

◇ Attention

- Keep away from heat/sparks/static electricity/open flames/hot surfaces. No smoking.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Avoid release to the environment.
- IF SWALLOWED: Rinse mouth.
- IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.
- 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
- Storage in a dark cold place. Keep away from sunshine.
- Construction and Industrial use ONLY
- See SDS for a detailed description.

◇ Packaging

320ml per Cartridge
10 pcs/ carton

◇ Color

White, Black, Grey, Ivory. *Customized Color Available.

★The specification is based solely on actual products. Subject to change without prior notice.



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