



One component moisture cure type Modified Silicone Sealant

Product Name

SHARPIE Modified Silicone LM

MSC1-03
JSIA F☆☆☆☆

One-component type, modified silicone.

Low Modulus Applicable to joints of Ceramics/metallic sidings.

Great thermal properties! Heat resistance(90°C) ! Cold resistance(-20°C) !

Certified with JIS A 5758 type F-20LM-8020(MS-1)



■Advantages

- ◇ Good weatherability and durability
- ◇ Low-modulus type
Applicable to extreme movements
- ◇ Changeless adhesion
With recommended primer,
guaranteed adhesion!

■Application

- Joints of ceramics-sidings
- Joints of wooden panels
- Joints of ALC
- Edge treatment of waterproof sheet
- Repair of concrete cracks
- Joints of metal-sidings

■Technical Product Data

Product Name	SHARPIE Modified silicone LM
Sealant Classification	JIS A5758 F-20LM-8020(MS-1) * JIS certification No. CE0508023
Consistency	Pasty
Main Component	Special Modified silicone polymer

Based on JIS A 5758 & JIS A 1439

Viscosity (Pa·s, 10rpm)	23°C	300~500
Density (g / ml)		1.39
Skin over time (min.)	23°C	60
Nonvolatile (%)		98.6
Extrudability (sec.)	23°C	3~5
Service Temperature		-20°C~90°C

Cure Rate	Days of curing skin to 5mm
5°C, 50%RH	more then 10d
23°C, 50%RH	approx.2d~3d
50°C, 50%RH	approx.1d~2d

Cured property after 23°C*7days

Elastic Recovery (%)	67
50% Tensile Stress	0.11
Tensile Strength (MPa)	1.06
Elongation at break (%)	900
Hardness (Shore A)	12
Cohesion properties at maintained extension	no failure
Cohesion properties after compression heating/tension cooling	no failure
Cohesion properties at maintained extension at Immersion in water	no failure
Durability(8020)	Pass





Tensile Properties

Cure condition \ Item	Test condition	50% Tensile stress (N/mm ²)	Maximum tensile stress (N/mm ²)	Elongation at break (%)	with primer P-50 Substrate : Aluminum
After curing	23°C	0.14	0.95	780	
After heating (80°C)	23°C	0.17	0.74	620	
After immersion in water	23°C	0.11	0.43	690	

Based on ASTM C920: 2008

Item / Property	Method	Result	Details
Class	C920	Class 25	
Type		Type S	
Grade		Grade NS	
Rheological (Flow)	C639	Vertical: 0mm sag Horizontal: No deformation	
Extrudability	C1183	>10ml/min	
Hardness	C661	20	Durometer Shore A
Tack-Free Time	C679	Pass	
Adhesion & Cohesion Under Cyclic Movement	C719	No bond failure	
Effects Of Heat Aging	C1246	1.1%	No cracking and chalking
Effects Of Accelerated Weathering	C793	No cracks after UV exposure and bend test	
Adhesion-In-Peel	C794	31.24 N (7.02 lbf)	
Staining	C1248	No surface stain	The primer was applied onto the substrates and allowed to dry till tack-free before application of the sealant.

■Fungal Resistance

Test micro-organisms: Aspergillus niger(ATCC 6275) ; Penicillium pinophilum(ATCC 36839);
Paecilomyces variotti(ATCC 18502); Chaetomium globosum(ATCC 6205); Gliocladium virens(ATCC 9645)

Adopted ISO 846 : 1997 Plastics-Evaluation Of The Action Of Micro-Organisms; Section 8.22 : Determination Of Fungistatic Effect (Method B)

Fungal resistance	Intensity of growth on	NOTE
Inoculated test samples	0(None)	under standard temperature and moisture conditions without inoculation
Control samples	0(None)	inoculated with micro-organisms and incubated
sterile samples	0(None)	under standard temperature and moisture conditions without inoculation
Viability Check	Growth	

■Chemical Resistance

Household bleach	No effect	Adopted ANSI Z124.3: 1995; (Section 5.2)
Urine/urea(6% uric acid)	No effect	



■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 operation, wooden corrosion should be removed.
- CAN NOT operated on asphalt.
- NO application on the surface which contained volatile.
- DO NOT operated too thin.
- CAN NOT adhere to marble and glass.

■Recommend primer

Recommend Substrates	Product Name	NOTE
concrete, metal, wood	Sharpie Primer P-32	Non Yellowing (Weather Resistance)
	SHARPIE primer P-50	Non-yellowing(weather resistance)

■Paintability

General reference. During primer or paint difference, confirmation request.

Classified	General	Adhesion	Non-stain	
Single layer finish	Acrylic resin lithin	○	○	For waterbase, be aware of water repellency
	Elastic lithin	○	△	
Multi-layer finish	Acrylic silicone	○	△	Adhesion ○:Good △:Normal ×:Bad
	Elastic spray lithin (waterproof)	○	△	
Thick layer finish	Synthetic stucco	○	○	Non-stain ◎:Excellent ○:Good △:Slight(not effected)
Waterbase paint		○	△	
Solventbase paint		○	△	
Oilbase paint		×	×	

Do NOT applied on oilbase or phthalic oxidatively-polymerized paint

■How to use

Please operate the product according to following procedure

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

■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 detailed description.





■Usage amount

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

D \ W	10mm	15mm	20mm	25mm	30mm	Loss rate 20% W: width. D: depth.
10mm	2.6	1.8	1.3			
15mm			0.9	0.7	0.6	

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

D \ W	10mm	15mm	20mm	25mm	30mm	Loss rate 30% W: width. D: depth.
10mm	175	175	175			
15mm			116	116	116	

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

■Packaging

●Sealant

- Sharpie Modified Silicone LM ... 320ml cartridge x10 /box 2boxes /bale
◇ Color: White, SD-Black, Grey, light grey, and so on. (Please refer to color card.)

●Primer

- Sharpie primer P-50 ... 500g/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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