

**Product Name SHARPIE Modified Silicone NB-LM**

MSC1-03  
JSIA F☆☆☆☆

One-component type, modified silicone, Non-bleed, Low Modulus Applicable to joints of ceramics sidings and ALC. Outstanding weatherability and thermal properties. Not only without finish, even with finish (including clear finish) long-lasting esthetic performance is expected .

Certified with JIS A 5758 type F12.5E-8020(MS-1)



■ **Advantages**

- ◇ Paintable  
Keep the overcoated paint elegant
- ◇ BEST50's, best 50 selections
- ◇ Low-modulus type
- ◇ Remarkable weatherability and durability
- ◇ Stable adhesion  
Please match up with recommended primer

■ **Application**

- Joints of ceramics-sidings
- Joints of wooden panels
- Joints of metal-sidings
- Joints of ALC

■ **Technical Product Data**

|                        |  |
|------------------------|--|
| Product Name           | SHARPIE Modified silicone NB-LM                                |
| Sealant Classification | JIS A5758 F-12.5E-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    | Cure Rate   | Days of curing skin to 5mm |
| Density (g / ml)             | 1.35         | 5°C, 50%RH  | more then 10d              |
| Skin over time (min.) 23°C   | 60           | 23°C, 50%RH | approx.2d~3d               |
| Nonvolatile ( % )            | 95.1         | 50°C, 50%RH | approx.1d~2d               |
| Extrudability (sec.) 23°C    | 3 ~ 5        |             |                            |
| Service Temperature          | -20°C ~ 90°C |             |                            |

Cured property after 23°C\*7days

|   |            |
|---|------------|
| Elastic Recovery (%)  | 65         |
| 50% Tensile Stress  | 0.12       |
| Tensile Strength ( MPa )  | 0.70       |
| Elongation at break ( % )   | 700        |
| Hardness ( Shore A )  | 9          |
| 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 <sup>2</sup> ) | Maximum tensile stress (N/mm <sup>2</sup> ) | Elongation at break (%) |
|--------------------------|----------------|---|---|-------------------------|
| After curing             | 23°C           | 0.10                                    | 0.70  | 550                     |
| After heating ( 80°C )   | 23°C           | 0.16                                    | 0.70  | 530                     |
| After immersion in water | 23°C           | 0.10                                    | 0.35  | 500                     |

with primer  
P-50  
Substrate :  
Aluminum

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<br>Horizontal: No deformation |   |
| Extrudability                             | C1183  | >10ml/min                                       |   |
| Hardness                                  | C661   | 25  | Durometer Shore A   |
| Tack-Free Time                            | C679   | Pass  |   |
| Adhesion & Cohesion Under Cyclic Movement | C719   | No bond failure                                 |   |
| Effects Of Heat Aging                     | C1246  | 1.0%  | No cracking and chalking  |
| Effects Of Accelerated Weathering         | C793   | No cracks after UV exposure and bend test       |   |
| Adhesion-In-Peel                          | C794   | 40.1 N ( 9.0 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<br>○:Good<br>△:Normal<br>× :Bad                        |
|                     | Elastic spray lithin (waterproof) | ○        | ◎         |   |
| Thick layer finish  | Synthetic stucco                  | ○        | ◎         | Non-stain<br>◎: Excellent<br>○: Good<br>△: 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% |
|-------|------|------|------|------|------|---------------|
| 10mm  | 2.6  | 1.8  | 1.3  |      |      |               |
| 15mm  |      |      | 0.9  | 0.7  | 0.6  | D: depth.     |

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

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

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

## ■Packaging

### ●Sealant

- Sharpie Modified Silicone NBLM ... 320ml cartridge x10 /box 2boxes /bale  
◇ Color: BEST50' selection for ceramics-sidings

### ●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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