

Item Name

SHARPIE™ DrySara®

MS1-60C

- ✚ DrySara® is a low modulus, non-bleed, super weatherability one-component modified silicone sealant.
- ✚ By using SharpChem's proprietary technology, improved the weatherability dramatically up to 2~3 times of conventional modified silicone, considerable 20 years of weather resistance.
- ✚ Low modulus type, yet less tackiness to prevent the surface from dirt.
- ✚ Excellent paintability, Non-bleed type, reduced water-based paint surface cracks occur at low temperatures Maintains the joints aesthetic appearance in long term, with or without painting.
- ✚ Good durability, JIS 8020 Durability test qualified product.
- ✚ Human · Environmental friendly. A metal-free formulation that does not contain tin catalyst.

■ APPLICATIONS

- Joints of exterior wall panels/boards/ roof materials/ metal plates/ceramic siding.
- Watertight and Airtight for interior joints
- Repair of cracks of mortar/concrete
- Sealing and bonding to parts with severe temperature changes.
- Terminal sealing of waterproofing sheet.
- Joints between outer wall and sash.

■ TECHNICAL PRODUCT DATA

◇ General Properties

| | |
|-------------------------|-------------------|
| Item name | SHARPIE™ DrySara® |
| Item code | MS1-60C |
| Consistency | Paste |
| Shelf-life | 18 Months |
| Viscosity(Pa·s) | 250~550Pa·s |
| Application Temperature | 5°C~35°C |
| Service Temperature | -20°C~90°C |

| | | |
|-------------------------|------|-----|
| Density (g/ml) | 1.38 | |
| Skin-form time (min) | 23°C | 60 |
| Extrudability (sec.) | 23°C | 3~5 |
| Nonvolatile (%) | 6.5 | |
| Durability (JIS 8020) | Pass | |

•Base on JIS A 5758 or JISA 1439

◇ Curing Properties

| Condition | Thickness of skin forming / Days | | | |
|------------|----------------------------------|-----|------|------|
| | 2mm | 5mm | 10mm | 15mm |
| 5°C*50%RH | 2 | >6 | - | - |
| 23°C*50%RH | 1.5 | 3 | 7 | - |
| 50°C*50%RH | 0.5 | 1 | 4 | 7 |

◇ Cured Properties (JIS K 6251 Dumbbel-3)

| | | |
|------------------------|----------------------|------|
| 50% Tensile stress | (N/mm ²) | 0.14 |
| Maximum tensile stress | (N/mm ²) | 0.90 |
| Elongation at break | (%) | 650 |
| Hardness | (Shore A) | 15 |



| | | | |
|----------------------|------------|------|----|
| Slump (mm) | Vertical | 5°C | 0 |
| | | 50°C | 0 |
| | Horizontal | 5°C | 0 |
| | | 50°C | 0 |
| Elastic Recovery (%) | | | 30 |

| | |
|---|-------------|
| Cohesion properties at maintained extension | No abnormal |
| Cohesion properties after compression heating/tension cooling | No abnormal |
| Cohesion properties at maintained extension at Immersion in water | No abnormal |

◇ Tensile Properties (JIS A1439)

| | Test condition | 50% Tensile stress (N/mm ²) | Maximum tensile stress (N/mm ²) | Maximum elongation (%) | Elongation at break (%) | |
|--------------------------|----------------|---|---|------------------------|-------------------------|---------------------------------|
| After curing | 23°C | 0.15 | 0.58 | 519 | 562 | with primer P-50 |
| After heating (80°C) | 23°C | 0.16 | 0.63 | 626 | 688 | Substrate: Ceramic siding board |
| After immersion in water | 23°C | 0.12 | 0.30 | 296 | 332 | |

◇ Paintability

*General reference. Due to primer or paint difference, a pre-confirmation test is recommended.

| Classified | General paint name | Adhesion | Non-stain | |
|---|------------------------------------|----------|-----------|---|
| Single layer finish | Acrylic resin | ○ | ◎ | *Adhesion : ○ : Good, △ : normal x : bad *Stain : ◎ : Excellent, △ : Slightly contaminated, but fine in practical use. x : Stain/bleed. |
| | Elastic Resin | ○ | ◎ | |
| Multi-layer finish | Silica tile | ○ | ◎ | |
| | Elastic spray tile (waterproofing) | ○ | ◎ | |
| Thick layer finish | Synthetic stucco | ○ | ◎ | |
| Water-based paint *Be aware of water repellency | | ○ | ◎ | |
| Solvent-based paint | | ○ | ◎ | |
| Oil-based paint | | ○ | △ | |

◇ Surface-Tackiness Test

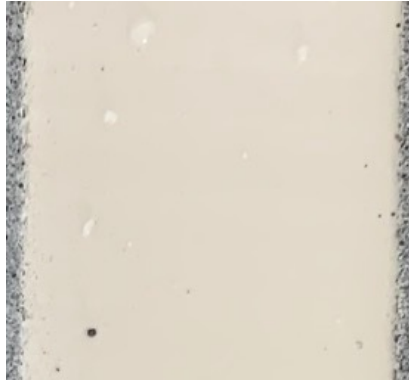
• Test Method: Apply sealant with a thickness of 3 mm. Cure at 23 ° C and 50% RH for 2 days. Sprinkle volcanic ash on the sealant, then remove the amount of volcanic ash that falls under its own weight. Put 100 hours in a xenon weather meter and spray with water. Observe the condition for the result.

SHARPIE

Without volcanic ash



Sharpie™ DrySara®



General Modified Silicone LM



◇ Weatherability Test

• Test Method: Perform the weatherability promotion test with a Dew panel optical control weather meter (wavelength: 313 nm, cycle conditions: irradiation 48 minutes + irradiation with water spray 12 minutes).
Sample thickness: 3 mm (cured at 23 ° C for 7 days or more)

• Evaluation by cracks.

Level 4: Very shallow hair-like cracks

Level 3: Shallow cracks that can be observed with naked eyes

Level 2: Deep cracks (about 1 ~ 2mm)

Level 1: Cracks that reach the bottom (about 2 ~ 3mm)



Level 4



Level 3



Level 2

| Item name | Unit | Unit to Level 4 | Unit to Level 3 | Unit to Level 2 |
|-------------------------|------|-----------------|-----------------|-----------------|
| DrySara | Hour | 2,800h | 3,300h | 4,000h |
| Modified Silicone NB-LM | Hour | 800h | 1,200h | 1,800h |

150 Hours ≒ 1 year of outdoor exposure

■ RECOMMENDED PRIMER

| Substrates | Item name | Note |
|---|--------------------|--|
| Ceramic siding, concrete Aluminum*, Steel* | Sharpie Primer P50 | No weather-resistant yellowing High viscosity |

* For metal surfaces such as aluminum and steel, remove excess drops from the brush before applying Primer P-50 so that it is not thickly applied.

■ HOW TO USE

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



■ USAGE AMOUNT

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

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

Lose rate: 20% W: Joint Width D: Joint Depth

The length(m) of primer operation per 50g can.

| D | W | 10mm | 15mm | 20mm | 25mm | 30mm |
|------|---|------|------|------|------|------|
| 10mm | | 175 | 175 | 175 | | |
| 15mm | | | | 116 | 116 | 116 |

Lose rate: 30% W: Joint Width D: Joint Depth

*non-porous surface(Metal,/glass), convert the amount of porous surface (mortar) usage to 1/2 m of a non-porous surface.

■ NOTICE

- The surfaces to be bonded must be dry, free of oil, dust, grease, and other contaminants.
- NO operation when it rains or snows.
- NO application on the surface which contained volatile.
- CAN NOT be operated on asphalt.
- Depending on the storage condition and period, it may turn yellow in the container, but it does not affect the performance.

■ CAUTION

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/ 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

■ PACKAGING & COLOR SELECTION

 SHARPIE™ DrySara® ... 320ml Cartridge x 10pcs per case
600ml Sausage x 12 pcs per case

 COLOR SELECTION ... Refer to Sharpie Best 70 color chart

White (BS-01)

SD Gray (BS-02)

Light Gray (BS-03)

Ivory (BS-04)

Beige (BS-05)

Dark Brown (BS-06)

Black (BS-07)

Gray (ST-01)

Amber (ST-07)

Pale Ivory (SD-02)

European Gray (SD-06)

Gray G (SD-09)

Hiyori Beige (SD-10)

Oyster White (SD-11)

SK175 (PT-03)

NP152 (PT-11)

★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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