



## Technical Data Sheet

### DOWSIL™ HM-2500 Assembly Sealant

Reactive hot-melt neutral cure RTV for assembly applications

#### Features & Benefits

- Instant Green Strength
- 100% Silicone
- Low VOC (exempt in CA)
- Safe to handle – nonhazardous composition and by-products
- Neutral Cure RTV
- Adheres to most common substrates
- Open time up to 15 minutes
- Pot life up to 24 hours
- Service temperatures from -50° to 300°F (-45° to 150°C)
- Can be used with standard hot melt dispensing equipment
- Excellent clarity
- Quick green strength allows parts to be moved immediately
- Long open time, long pot life and moderate application temperature offer a user friendly application
- High viscosity at room temperature resists flow of material which reduces sealant squeeze out and clean up

#### Composition

- Moisture curing, 100 percent silicone, reactive hot-melt sealant

#### Applications

- DOWSIL™ HM-2500 Assembly Sealant is designed for use as an assembly sealant. This product utilizes hot-melt technology to dispense the material which utilizes silicone technology to achieve instant green strength when dispensed and cures to strong moisture cured silicone sealant.

#### Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

| Test <sup>1</sup> | Property                   | Unit    | Result |
|-------------------|----------------------------|---------|--------|
| CTM 0719          | Viscosity at 250°F (120°C) | poise   | 2100   |
| CTM 0086          | Nonvolatile Content        | %       | > 98.5 |
| CTM 0243          | Open Time                  | minutes | 15     |

1. CTM: Corporate Test Method, copies of CTMs are available upon request.  
ASTM: American Society for Testing and Materials.

## Typical Properties (Cont.)

| Test       | Property                  | Unit     | Result                   |
|------------|---------------------------|----------|--------------------------|
| CMT 0243   | Green Strength at 15 min  | psi      | 18                       |
| CMT 0243   | Green Strength at 60 min  | psi      | 28                       |
|            | Cure Time, 1/8" bead      | days     | 2                        |
| ASTM C661  | Durometer – Shore A       | points   | 60                       |
| ASTM D412  | Tensile Strength          | psi      | 350                      |
| ASTM D412  | Elongation                | %        | 1000                     |
| CMT 0044   | Specific Gravity          | uncured  | 1.06                     |
| CMT 0176   | Appearance                |          | Water Clear              |
| ASTM C711  | Service Temperature Range | °F<br>°C | -50 to 300<br>-45 to 150 |
| ASTM D4498 | Heat- Fail Temp in Shear  | °F<br>°C | 470<br>245               |

### Description

DOWSIL HM-2500 Assembly Sealant is a 100 percent silicone, neutral cure sealant formulated to have an immediate green strength to offer assembly improvements and other production applications. Products made with this product can be immediately handled.

As a viscoelastic material when cured and then exposed to high temperatures this product will soften but recovers to its typical properties when cooled down.

### Listings/ Specifications

FDA Regulations 21 CFR 177.2600 for aqueous applications.

National Sanitation Foundation, (NSF) List 51 – Food and equipment materials aqueous and dry solids.

NSF 61 for use with potable water.

Recognized under UL QMFZ2.

### How To Use

#### Preparation

Surfaces should be clean and dry before sealant application.

#### Application

DOWSIL HM-2500 Assembly Sealant is from 5 gallon pails or 55 gallon drums with a platen-type hot-melt pump. Application temperature is typically 250°F (120°C).

When the melt temperature has been reached, application with automated or hand-assisted dispensing equipment can begin. Once applied to the substrate the parts should be assembled within 15 minutes. Once applied, this product reacts with the atmospheric moisture to form a weather resistant, flexible, silicone sealant. Exposure of opened containers with air should be minimized.

## **Handling Precautions**

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT [WWW.CONSUMER.DOW.COM](http://WWW.CONSUMER.DOW.COM), OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Material is applied at 250°F (120°C). Use common personal protective equipment to prevent contacting the hot material with skin or eye.

## **Usable Life And Storage**

When stored at or below 90°F (32°C) in the original unopened containers, this product has a usable life of 12 months from the date of production. Refer to product packaging for "Use by Date".

## **Packaging**

This product is available in 50 gram cartridges, 304 ml cartridges, 18 kg pails, 27 kg pails and 205 kg drums.

## **Limitations**

DOWSIL HM-2500 Assembly Sealant is not intended for use:

- In spaces totally confined from atmospheric moisture during cure
- In continuous water immersion
- On surface that might bleed oils, plasticizers or solvents

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

## **Health And Environmental Information**

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, [www.consumer.dow.com](http://www.consumer.dow.com) or consult your local Dow representative.

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### **LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY**

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

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