

HASA 66071

Product Description

Heron® HASA 66071 is a single component structural anaerobic adhesive formulated for bonding rigid assemblies at high temperatures. **HASA 66071** cures when it is confined between mating surfaces. **Heron® Primer 50** accelerates the cure.

Product Benefits

- Single component, ready to use adhesive.
- Room temperature cure.
- 100% active material, no solvents.
- Easy clean up. Wipe uncured adhesive from outer surfaces.
- RoHS 2011/65/EU Annex II and Halogen content (Cl, Br, I, F) compliance testing through independent 3rd party verification for electronic equipment.

Typical Applications

- Bonding ferrite to plated metals in electric motors and loudspeakers.
- Bonding of glass and ceramics.
- Where fast setting of adhesives with high structural properties is required.

Typical Properties (Uncured)

| Property | Value |
|-------------------------|-------------------|
| Chemical Type | Modified urethane |
| Appearance | Amber liquid |
| Specific gravity @ 25°C | 1.12 |
| Viscosity @ 25°C, cP | 15,000 – 18,000 |

Typical Properties (Cured)

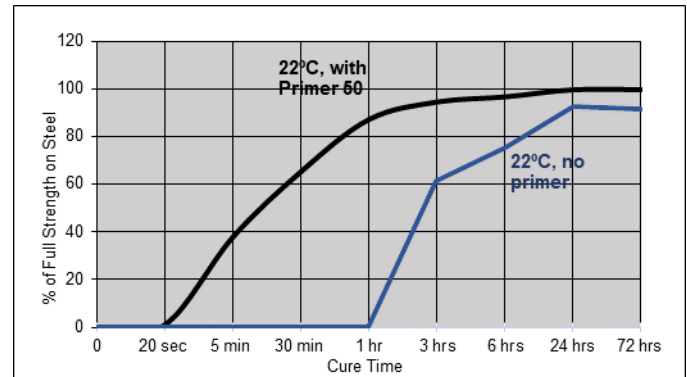
Physical Properties

| Property | Value |
|--|------------------------|
| Coefficient of thermal expansion, ASTM D696 (K ⁻¹) | 190 x 10 ⁻⁶ |
| Coefficient of thermal conductivity, ASTM C 177, W/(m·K) | 0.44 |

Typical Curing Performance

Cure Speed vs. Substrate

The rate of cure will depend on the substrate used. The graph below shows the shear strength developed with time on grit blasted steel lap shears and tested according to ASTM D1002. (**Primer 50** applied to one surface)



The table below shows the fixture time achieved on different materials at 22°C / 50% relative humidity. Fixture time is defined as the time to develop a shear strength of 0.1 N/mm².

| Substrate | Fixture Time (seconds) |
|-----------|------------------------|
| Steel | < 20 |
| Aluminum | < 30 |

Typical Cured Performance

Shear Strength, ASTM D1002
Grit blasted specimens **Primer 50** on 1 sides

| Substrate/ Cure Conditions | Value, psi |
|------------------------------|------------|
| Steel / RT cure, 24 Hours | 1500-2500 |
| Aluminum / RT cure, 24 Hours | 1500-2500 |

Typical Environmental Resistance

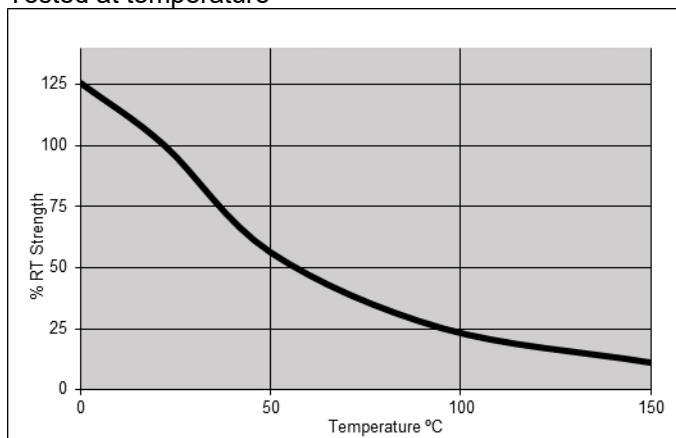
Cured for 1 week @ 22 °C, **Primer 50** on 1 side
Shear Strength, ASTM D1002
Steel (grit blasted)

Hernon® Technical Data Sheet

HASA 66071

Hot Strength

Tested at temperature



Heat Aging

Aged at temperature indicated - Tested at 72°F (22°C).

| Time Hours | Temperature (°C) | % of Initial Strength |
|---------------|---------------------|--------------------------|
| 1000 | 100 | 170 |
| | 120 | 155 |
| | 150 | >7 |

Chemical/Solvent Resistance

Aged under condition indicated.

Tested at 72°F (22°C).

| Chemical | Temperature (°C) | Exposure time (hours) | % of Initial Strength |
|------------------|---------------------|-----------------------------|-----------------------------|
| ATF | 87 | 360 | 172.9 |
| Motor Oil | 87 | 360 | 217.4 |
| Humidity, 95% RH | 45 | 720 | 89.2 |

General Information

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Safety Data Sheet (SDS).

Where aqueous washing systems are used to clean the surfaces before bonding, it is important to check for compatibility of the washing solution with the adhesive. In some case these aqueous washes can affect the cue and performance of the adhesive.

This product is not normally recommended for use on plastics (particularly thermoplastic materials where stress cracking of the plastic could result). It is recommended to confirm compatibility of the product with such substrates.

Directions for Use

1. For best performance, bond surfaces should be clean and free of grease.
2. To ensure a fast and reliable cure, **Primer 50** should be applied to one of the bond surfaces and the adhesive to the other surface. Parts should be assembled within 15 minutes.
3. The recommended bond line gap is 0.1 mm. Where bond gaps are large, (up to a maximum of 0.5mm), or faster cure speed is required, activator should be applied to both surfaces. Parts should be assembled immediately, (within 1 minute).
 4. Excess adhesive can be wiped away with organic solvent.
 5. Bond should be held clamped until adhesive has fixture.
 6. Product should be allowed to develop full strength before subjecting to any service loads, (typically 24 to 72 hours after assembly depending on bond gap and materials).

Storage

HASA 66071 should be stored in a cool, dry location in unopened containers at a temperature between 45°F to 85°F (7°C to 29°C) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused material, do not return any material to its original container.

Dispensing Equipment

Hernon® offers a complete line of semi and fully automated dispensing equipment. Contact **Hernon® Sales** for additional information.

These suggestions and data are based on information we believe to be reliable and accurate, but no guarantee of their accuracy is made. HERNON MANUFACTURING, INC. shall not be liable for any damage, loss or injury, direct or consequential arising out of the use or the inability to use the product. In every case, we urge and recommend that purchasers, before using any product in full scale production, make their own tests to determine whether the product is of satisfactory quality and suitability for their operations, and the user assumes all risk and liability whatsoever, in connection therewith. Hernon's Quality Management System for the design and manufacture of high-performance adhesives and sealants is registered to the ISO 9001 Quality Standard.