

Ultrabond® 736

Product Description

Hernon® Ultrabond® 736 is a high impact UV curable structural adhesive formulated for bonding glass to glass, glass to metal and for potting and tacking applications. **Ultrabond® 736** can also cure by heat or with activator. **Ultrabond® 736** cures on exposure to ultraviolet light, with a wavelength of 365 nm, or with **Hernon® Activator 56**.

Typical Applications

- Bonding glass to glass
- Bonding glass to metal
- Bonding some plastics
- Bonding Potting
- Bonding Wire tacking
- Bonding Coating

Product Benefits

- One component
- 100% solid (no solvent)
- Fast cure speed with UV light or **Activator 56**
- Unlimited adjustment time until exposed to UV light
- Good adhesion to glass
- Bond is almost invisible

Properties Of Uncured Material

Property	Value
Resin	Modified acrylic ester
Appearance	Clear to Light amber liquid
Specific Gravity @ 25°C	1.10
Viscosity @ 25°C, cP	18,000 – 23,000
Flash Point	See SDS
Refractive Index	1.47

Typical Properties (Cured)

Physical Properties

Property	Value
Shore Hardness, ASTM D2240, Shore D	45-55
Temperature Range, °C (°F)	-55 to 121 (-65 to 250)

Typical Curing Performance

Ultrabond® 736 can be cured when exposed to UV radiation of 365nm. The speed of cure will depend on the UV intensity as measured at the product surface.

Tack Free Time

Measured @ 365 nm, using medium pressure, mercury arc lamp: US 1000, at ½ inch distance: ≤ 10 seconds
By using LED9, at ¼ inch distance: ≤ 15 seconds

Fixture Time

Fixture time is defined as the time to develop a shear strength of 0.1 N/mm².

Specimen	Cure Conditions	Fixture Time
Glass blocks	US 1000, at ½ inch distance	≤ 5 seconds

Typical Cured Performance

Block- Shear Strength on different specimens
Cured with US 1000, at ½ inch distance
Tested at RT, according to ASTM D4501

Specimen	Cure Conditions	Value, psi
Glass to Glass	UV-cured for 30 sec, post-cured for 24 hours at 22 °C	≥ 200

Shear Strength on lap-shear specimens
Tested according to ASTM D1002.

Specimen	Cure Conditions	Value, psi
G/B Steel	Cured for 24 hours @ 22°C with Primer 56 *	≥ 1,000

* This product may be cured with an activator. Apply **Activator 56** to one surface and the adhesive to the other, join together and clamp.

Heat Cure

Ultrabond® 736 can be also cured with heat at 250°F (121°C). At least, 30 minutes is needed to achieve cured properties. *

*Bondline has to reach this temperature.

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).

Directions for Use

- **Ultrabond® 736** is light sensitive. Exposure to daylight, UV light and artificial lighting should be kept to a minimum during storage and handling.
- Product should be dispensed from applicators with black feed lines.
- For best performance bond surfaces should be clean and free from grease.
- Cure rate is dependent on lamp intensity, distance from light source, depth of cure needed or bondline gap and light transmittance of the substrate through which the radiation must pass.
- For dry curing of exposed surfaces higher UV irradiance is required (100 mW/cm² minimum).
- Cooling should be provided for temperature sensitive substrates such as thermoplastics.
- Crystalline and semi-crystalline thermoplastics should be checked for risk of stress cracking when exposed to liquid adhesive.
- Excess adhesive can be wiped away with organic solvent.
- Bonds should be allowed to cool before subjecting to any service loads.

Storage

Ultrabond® 736 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.