HERNON®
Formulating Solutions

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Ultrabond 721

Product Description

Hernon® Ultrabond Sealant 721 is a UV curable adhesive that can be used to seal a variety of plastics when exposed to UV light. The sealant offers a water- tight seal with excellent environmental resistance.

Product Benefits

- UV fluorescence for in-process inspection
- Excellent Water Resistance
- Good adhesion to a variety of plastics
- 100% solid system (no solvents)
- Good gap filling properties
- No shrinkage due to solvent evaporation
- Rapid UV cure and self leveling

Typical Properties (Uncured)

Property	Value
Chemical Type	Acrylate
Appearance	Clear - Light Yellow liquid
Specific Gravity @ 25ºC	1.06
Viscosity @ 25ºC, cP	700 to 1200
Flash Point	See SDS
Refractive Index, nD	1.481

Typical Properties (Cured)

Physical Properties

Property	Value
Shore Hardness, Shore A	40-80
Temperature Range, ºC	-55 to 120

Typical Curing Performance

Ultrabond Sealant 721 will cure rapidly at room temperature when exposed to high intensity ultraviolet light (365 nm). 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: By using LED6, at ½ inch distance: < 5 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/Glass	LED6, at ½ inch distance	< 5 seconds

Typical Cured Performance

Block- Shear Strength on different specimens
Tested according to ASTM D4501

Specimen	Cure Time	Value, psi
Glass Blocks	UV-cured for 30 sec, post-cured for 24 hours at 22 ºC	≥ 200
Polycarbonate Blocks	UV-cured for 30 sec, post-cured for 24 hours at 22 ºC	≥ 100

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

Apply a small amount of material around the areas to be sealed. Apply enough material to fill the voids. Cure the material with a high intensity UV lamp for 3 – 5 seconds at 365 nm.

Factors Affecting UV Curing

- All UV sources degrade with use. Check output with a radiometer.
- Thicker films require longer cures.
- Light intensity decreases as distance from UV source increases.
- Some clear plastics may contain UV inhibitors.

Precautions When Using UV Lamps

- Never look directly at UV source.
- Wear protective UV goggles

- Use in a well-ventilated area. Some UV sources generate ozone. Provide shielding around high intensity UV sources.
- High intensity UV sources generate heat. Take appropriate precautions

Storage

Ultrabond Sealant 721 should be stored in a cool, dry location in unopened containers at a temperature between 45ºF to 85ºF (7ºC to 29ºC) 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 Total Solution for your adhesives and sealants including precision dispensing and curing equipment. Contact **Hernon® Sales** for additional information.