HERNON®
Formulating Solutions

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Ultrabond® 787

Product Description

Hernon® Ultrabond® 787 is a one component, thixotropic adhesive, which cures when exposed to ultraviolet radiation and/or visible light of sufficient intensity.

Typical Applications

Ultrabond® 787 is primarily used for bonding rigid and flexible PVC to polycarbonate where large gap filling capabilities and a flexible joint are desired. Its flexibility enhances the load bearing and shock absorbing characteristics of the bond area. It has also shown excellent adhesion to a wide variety of substrates including glass, many plastics and most metals.

Properties of Uncured Material

Property	Value
Chemical Type	Urethane Acrylate
Appearance	Yellow liquid
Specific Gravity @ 25ºC	1.25
Viscosity @ 25ºC, cP	4,000 - 6,000
Refractive Index, N_D	1.484
Flash Point	See SDS

Typical Properties (Cured)

Physical Properties

Property	Value
Hardness, ASTM D2240, Shore D	55-65
Temperature Range, ºC (ºF)	-55 to 150 (-65 to 300)

Typical Curing Performance

Ultrabond® 787 can be cured through irradiation with ultraviolet and/or visible light of sufficient intensity. To obtain full cure on surfaces exposed to air, the intensity of energy at 365 nm is particularly important. The cure rate and ultimate depth of cure will depend on light intensity, the spectral distribution of the light source, the exposure time and the light transmittance of the substrates.

Tack Free Time
Measured @ 365 nm, using medium pressure, mercury arc lamp: US 1000, at ½ inch distance: < 5 seconds
By using LED9, at ¼ inch distance: <10 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 (sec)
Polycarbonate Blocks	US1000, at ½ in	< 5

Typical Cured Performance

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

Specimen	Cure Time (sec)	Value, psi
Polycarbonate Blocks	UV-cured for 30 sec, post-cured for 24 hours at 22 ºC	≥ 500

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® 787 is UV 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. UV 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® 787 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 complete line of semi and fully automated dispensing equipment. Contact **Hernon® Sales** for additional information.