

TECHNICAL DATA SHEET

Altraset® HV

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Product Description

Altraset® HV is a fast cure UV adhesive which bonds glass to glass, glass to metal components such as precision optical instruments, electronic devices, furniture and industrial devices. It is used for rapid cure glass bonding applications. When cured, it is highly resistant to vibration and impact forces.

Properties

Technology	: Acrylic
Chemical type	: Acrylic ester
Components	: One part - requires no mixing
Appearance	: Transparent/ colorless liquid
Sp. Gravity @ 25±2 °C	: 1.04
Viscosity @ 25 ±2°C, Brookfield Spindle no. 5, Speed 20 rpm	: 7000 to 10000 cP
Cure	: Ultraviolet Light
Temperature range	: -30 °C to 150 °C
Application	: Bonding
Key substrate	: Glass, metals

Curing Performance

Altraset® HV will only cure when and where it is exposed to ultraviolet light. If being used to bond parts together, UV light must be able to pass through one of the parts to reach the adhesive.

NOTE: Because UV light is at a higher wavelength than visible light, it doesn't penetrate plastics and glass the same. A part that is clear to the eye does not necessarily transmit UV light. Cure rate and ultimate depth of cure depend on light intensity, spectral distribution of the light source, exposure time, bondline gap, geometry and light transmittance of the substrate through which the light must pass.

Fixture Time

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

UV Fixture Time, 10 mW/cm² using a mercury light source

Glass-Glass microscope slides	: 8-10 sec
Glass to steel	: 8-10 sec

Adhesive Properties of Cured Material

Cured @ 100 mW/cm², measured @ 365 nm for 30 second using UV light source, tested after 24 hrs

Lap Shear Strength, ASTM D 1002:

Glass to Glass	: Substrate Failure
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Chemical/Solvent Resistance

Aged under conditions indicated and tested @ 25°C.

Environment	Temp (°C)	% of initial strength 100 hrs.	500 hrs.
Ethanol	25	100	100
Isopropanol	25	100	100
Heat/humidity 90% RH	40	100	100

Directions for use

- ❖ This product is light sensitive; exposure to daylight, UV light and artificial lighting should be kept to a minimum during storage and handling.
- ❖ For best performance bond surfaces should be clean and free from grease.
- ❖ For dry curing of exposed surfaces, higher intensity UV is required (100 mW/cm²).
- ❖ Plastic grades should be checked for risk of stress cracking when exposed to liquid adhesive.
- ❖ Excess uncured adhesive can be wiped away with organic solvent (e.g. Acetone).
- ❖ Handling Bond strength should be allowed to develop before subjecting to any service loads.

Handling

- ❖ Altraset® HV must be handled in compliance with relevant local regulations.
- ❖ Altraset® HV can affect certain plastics or coatings. It is recommended to check all surfaces for compatibility before use.

Storage

- ❖ Store Altraset® HV in a cool and dry location in unopened containers at a temperature room temperature in dark condition or lighting should be kept to a minimum.
- ❖ To prevent contamination of unused product, do not return any material to its original container. For further specific shelf life information, contact our technical service Center.

Pack Size

Altraset® HV is ideally available in 100 gm and 500 gm pack size.

Note

All statements, technical information and recommendations set forth herein are based on tests which Metlok Private Limited, believes to be reliable. However, Metlok Private Limited does not guarantee their accuracy or completeness. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In no case will Metlok Private Limited be liable for direct, consequential economic or other damages.

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