



LOCTITE® AA 3922™

October 2025

PRODUCT DESCRIPTION

LOCTITE® AA 3922™ provides the following product characteristics:

| | |
|----------------------|---|
| Technology | Acrylic |
| Chemical Type | UV Acrylic |
| Appearance (uncured) | Transparent to hazy liquid ^{LMS} |
| Fluorescence | Positive under UV light ^{LMS} |
| Components | One component – requires no mixing |
| Viscosity | Low |
| Cure | Ultraviolet (UV) / visible light |
| Cure benefit | Production - high speed curing |
| Application | Bonding |

LOCTITE® AA 3922™ is suitable for a wide variety of applications that require fast cure, flexibility, high adhesion and autoclave resistance. LOCTITE® AA 3922™ cures in seconds when exposed to light of the proper wavelength and intensity and achieves excellent adhesion to glass, plastics and metal. The ability of this product to fluoresce under black light facilitates inspection of bonded assemblies for adhesive presence. LOCTITE® AA 3922™ was specifically designed for bonding stainless steel cannulae into hubs, syringes and lancets for needle assemblies. The viscosity of this product makes the adhesive well suited for applications where the adhesive will be dispensed in the well after the cannulae and the hub have been assembled. Suitable for use in the assembly of disposable medical devices.

ISO-10993

LOCTITE® AA 3922™ has been tested to Henkel's test protocols based on ISO 10993 biocompatibility standards, as a means to assist in the selection of products for use in the medical device industry.

TYPICAL PROPERTIES OF UNCURED MATERIAL

| | |
|--|---------------------------|
| Specific gravity @ 25 °C | 1.04 |
| Flash point - see SDS | |
| Viscosity Cone & Plate @ 25°C, mPa.s (cP): | |
| Shear rate 1,000s ⁻¹ | 150 to 450 ^{LMS} |

TYPICAL CURING PERFORMANCE

Fixture Time

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

UV fixture time, glass, seconds:

| | |
|---|--------------------|
| Black light, Zeta® 7500 light source: | |
| 6 mW/cm ² , measured @ 365 nm, | ≤10 ^{LMS} |

Tack Free Time

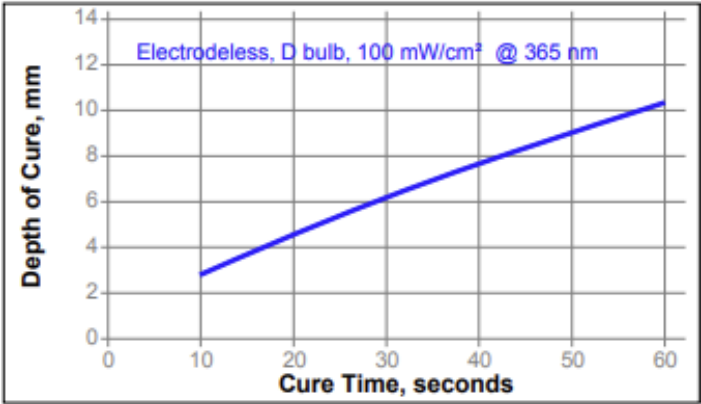
Tack free time is the time required to achieve a tack free surface.

Tack Free Time, seconds:

| | |
|---|-----|
| Zeta® 7410 light source: | |
| 30 mW/cm ² , measured @ 365 nm, | >60 |
| Electrodeless system, D bulb: | |
| 100 mW/cm ² , measured @ 365 nm, | >60 |

Depth of cure

The graph below shows the increase in depth of cure with time at 100 mW/cm² as measured from the thickness of the cured pellet formed in a 15 mm diameter PTFE die.



TYPICAL PROPERTIES OF CURED MATERIAL

Cured @ 100 mW/cm², measured @ 365nm, for 30 seconds per side using an Electrodeless system, D bulb.

Physical properties

| | |
|--|-----------------------|
| Coefficient of Thermal Expansion, | |
| ISO 11359-2, K ⁻¹ : | |
| Pre Tg | 114x10 ⁻⁶ |
| Post Tg | 245x10 ⁻⁶ |
| Glass Transition Temperature, ISO 11359-2, °C: | 75 |
| Water absorption, ISO 62, %: | |
| 2 hours in water @ 100°C | 7.2 |
| 7 days in water @ 22 °C | 14.2 |
| Linear shrinkage, ASTM D 792, in/in | 2.0 |
| Shore hardness, ISO 868, Durometer D | 66 |
| Elongation at break, ISO 527-3, % | 135 |
| Tensile Strength, ISO 527-3 | N/mm ² 18 |
| | (psi) (2,600) |
| Tensile Modulus, ISO 527-3 | N/mm ² 630 |
| | (psi) (92,000) |



Adhesive properties

Cured @ 1,000 mW/cm², measured @ 365 nm, for 10 seconds using an Electrodeless system, D bulb

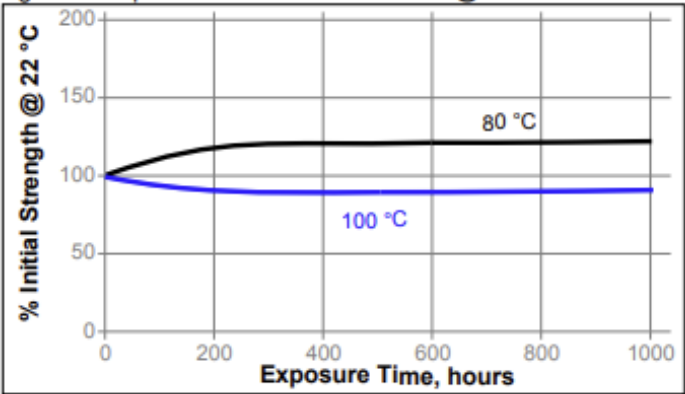
Needle Pullout Strength:

| Material | 22 Gauge Cannula | | 27 Gauge Cannula | |
|--------------------------------|------------------|------|------------------|------|
| | N | (lb) | N | (lb) |
| ABS | 245 | (55) | 85 | (19) |
| Acrylic | 240 | (54) | 85 | (19) |
| Polycarbonate | 205 | (46) | 107 | (24) |
| Polyethylene | 50 | (11) | 20 | (5) |
| Polyethylene (plasma treated) | 180 | (41) | 75 | (17) |
| Polypropylene | 75 | (17) | 20 | (5) |
| Polypropylene (plasma treated) | 220 | (50) | 95 | (21) |
| Polystyrene | 180 | (41) | 65 | (15) |
| Polyurethane | 155 | (35) | 80 | (18) |

TYPICAL ENVIRONMENTAL RESISTANCE

Heat Aging

Aged at temperature indicated and tested @ 22 °C.



Chemical/Solvent Resistance

Aged under conditions indicated and tested @ 23°C.

| Environment | °C | % of initial strength | | | |
|-----------------|----|-----------------------|-------|-------|--------|
| | | 24 h | 100 h | 500 h | 1000 h |
| 95% RH | 40 | -- | 130 | 75 | 65 |
| Water Immersion | 22 | -- | 135 | 100 | 95 |
| Isopropanol | 22 | 125 | -- | -- | -- |
| Heptane | 22 | 140 | -- | -- | -- |

Thermal Stability of Needle Assemblies

Aged @ 60°C and tested @ 22 °C

| Needle Pullout Strength, % of initial strength: | | 4 weeks | 8 weeks |
|---|--|---------|---------|
| Polycarbonate: | | | |
| 22 Gauge Cannula | | 85 | 85 |
| 27 Gauge Cannula | | 180 | 200 |
| Polypropylene (plasma treated): | | | |
| 22 Gauge Cannula | | 60 | 65 |
| 27 Gauge Cannula | | 145 | 150 |
| Polystyrene: | | | |
| 22 Gauge Cannula | | 105 | 105 |
| 27 Gauge Cannula | | 160 | 165 |

Block Shear Strength, ISO 13445:

Cured @ 100 mW/cm², measured @ 365 nm, for 30 seconds.

| | | |
|-------------------------------------|-------|---------|
| Acrylic to Glass: | N/mm² | 4.5 |
| | (psi) | (650) |
| Acrylic to Acrylic | N/mm² | 7.0 |
| | (psi) | (1,000) |
| G-10 Epoxy glass to Glass | N/mm² | 12.5 |
| | (psi) | (1,800) |
| Nylon to Glass | N/mm² | 4.0 |
| | (psi) | (600) |
| Polybutylene Terephthalate to Glass | N/mm² | 7.0 |
| | (psi) | (1,000) |
| Polycarbonate to polycarbonate | N/mm² | 23.5 |
| | (psi) | (3,400) |
| Polyvinylchloride to Glass | N/mm² | 5.5 |
| | (psi) | (800) |
| Aluminum (grit blasted) to Glass | N/mm² | 14.5 |
| | (psi) | (2,100) |
| Steel (grit blasted) to Glass | N/mm² | 15.0 |
| | (psi) | (2,200) |



Sterilization Resistance of Needle Assemblies

Sterilized as indicated and tested @ 22 °C

Needle Pullout Strength, % of initial strength:

| | Gamma | ETO | Autoclave | |
|--|------------|------------|------------|------------|
| | 30 kGy | 1 Cycle | 1 Cycle | 5 Cycles |
| Polycarbonate 22 Gauge Cannula 27 Gauge Cannula | 90 195 | 110 200 | 80 130 | 80 120 |
| Polypropylene (plasma treated) 22 Gauge Cannula 27 Gauge Cannula | 80 145 | 85 150 | 125 145 | 120 140 |
| Polystyrene 22 Gauge Cannula 27 Gauge Cannula | 105 175 | 115 165 | - - | - - |

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

- 1. This product is light sensitive; exposure to daylight, UV light and artificial lighting should be kept to a minimum during storage and handling.
- 2. The product should be dispensed from application with black feedlines.
- 3. For best performance bond surfaces should be clean and free from grease.
- 4. Cure rate is dependent on lamp intensity, distance from light source, depth of cure needed or bondline gap and light transmission of the substrate through which the radiation must pass.
- 5. Cooling should be provided for temperature sensitive substrates such as thermoplastics.
- 6. Plastic grades should be checked for risk of stress cracking when exposed to liquid adhesive.
- 7. Excess adhesive can be wiped away with organic solvent.
- 8. Bonds should be allowed to cool before subjecting to any service loads.

Loctite material specification^{LMS}

LMS dated December 21, 2000. Test reports for each batch are available for the indicated properties. LMS test reports include selected QC test parameters considered appropriate to specifications for customer use. Additionally, comprehensive controls are in place to assure product quality and consistency. Special customer specification requirements may be coordinated through Henkel Quality.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Storage below 8°C or greater than 28°C can adversely affect product properties. Optimal storage: 8°C to 21°C.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Henkel representative.

Conversions

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Product specification

The technical data contained herein are intended as reference only and are not considered specifications for the product. Product specifications are located on the Certificate of Analysis or please contact Henkel representative.

Approval and certificate

Please contact Henkel representative for related approval or certificate of this product

Data ranges

The data contained herein may be reported as a typical value. Values are based on actual test data and are verified on a periodic basis.

Temperature/Humidity Ranges: 23°C / 50% RH = 23±2°C / 50±5% RH

Disclaimer

The information provided in this Technical data sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product. Any liability in respect of the information in the Technical data sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.



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Reference 2

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