BORN2BOND LC 2100 GEL

MONOCOMPONENT UV-CURABLE ACRYLATE ADHESIVE

TECHICAL DATA SHEET

April 2026

PRODUCT DESCRIPTION

Bostik Born2Bond™ LC 2100 GEL is a high-performance UV acrylic adhesive engineered to deliver an exceptional balance between thermal resistance and mechanical flexibility. With a uniquely optimized compromise between high glass transition temperature (Tg) and high elongation, LC 2100 Gel ensures robust structural bonding while keeping flexibility.

Born2Bond™ LC 2100 GEL offers superior adhesion across a wide range of substrates, including PC, FR4, Clear PA, metals and glass, making it ideal for demanding industrial bonding applications.

KEY FEATURES

→ UV curing
→ Fast curing
→ Good compromise Tg vs Elongation
→ Very good adhesion on PC, FR4, Clear PA, Metal and Glass
→ Thixotropic/non sagging properties
→ Gap filling up to 2 mm
→ ISO 10993-5 compliant

DIRECTIONS FOR USE

Before applying LC 2100 GEL make sure the surface is clean, dry and grease-free. Most plastics require a simple cleaning before bonding. Some may require surface treatment for better performances. Avoid contact with direct sun light or any other artificial light source. Materials must be stored in cool place away from sources of heat.

Read material Safety Data Sheet before handling or using this product.

METHOD OF USE

- Manual: Directly from the syringe with or without dispensing cannula for more precise dispensing.
- Semi-Automated: Use of pressure-time systems for accurate volume and larger series.
- Full-Automated: fully automated robot application lines (progressive cavity pumps or screw pumps, jetting).

APPLICATIONS

Typical applications for this product are fast bonding of metal, plastic and glass parts.

STORAGE/SHELF LIFE

The LC 2100 GEL shelf life is 6 months in unopened original packaging. The product may be stored in a closed container in a dry place at temperature between 5 °C and 25 °C. Exposure to higher or lower temperature will result in a reduction of the stated shelf life.

HEALTH/SAFETY

The Safety Data Sheet is available on the Bostik website and should be consulted for proper handling, cleanup and spill containment before use. Keep containers covered to minimize contamination.

LIMITATIONS

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. Material removed from containers may be contaminated during use. Do not return product to the original container. Bostik will not assume responsibility for product that has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service representative.

PRODUCT CHARACTERISTICS

Basis Technology	UV-Acrylate
Components	1K
Appearance/Colour	Transparent
UV tracing	360 – 405 nm*
Cure	LED (365 nm, 385 nm, 405 nm), UVA
Temperature Range	-40 °C to 120 °C
Consistency	Thixotropic, non sagging

*After curing

UNCURED PHYSICAL PROPERTIES

Viscosity @ 23 °C, 2 rpm Brookfield (mPa·s)	100,000 - 140,000
Density ISO 2811-1 :@ 23°C	1.03 – 1.05
Depth of cure (LED 405 nm, 500 mW/cm², 30 s)	8 mm

FIXTURE TIME AND CURING TIME

Fixture Time* (Tested on Glass, gap: 0.125 mm @ 405 nm, 500 mW/cm²)	1 ± 0.5 s
Minimum curing dose (LED 405 nm)	1500 mJ/cm² (for 100 µm)
Typical irradiation conditions	LED 405 nm 300 mW/cm² 5 s

*Time to develop a shear strength of 0.1 N/mm².

Curing time must be determined and qualified in real conditions and environment of the intended use, as it will vary depending on parameters such as substrate light absorption, adhesive thickness, light spectrum, irradiation intensity, distance from the lamp, temperature, etc. For process robustness, Bostik advices to increase light exposure time and/or light intensity used during the initial curing time qualification, in order to absorb all possible variations of the operational conditions.

CURED PHYSICAL PROPERTIES

Shore Hardness D ISO 868	45 - 50
Tensile Strength ISO 527	27 MPa
Elongation at Break ISO 527	270%
Glass Transition Temperature ISO 6721-11	92 °C
Refractive index (20 °C) ABBE	1.50
Water Absorption (after 48 h) ASTM D-542	≤ 2,5%
Volume shrinkage ISO 10563	6 ± 0,5 %

SUBSTRATES RECOMMENDATION

Substrates	Recommendation
PC	X
FR4	X
ABS	X
Clear PA	X
Rigid PVC	X
Aluminum	X
Stainless Steel	X
Glass	X
Polyimide	X

X: Recommended O: limited application

BONDING PERFORMANCE

Lapshear Strength (ISO 4587) @ 23 °C (MPa)

Samples were prepared using LED 405 nm with an irradiation measured on sample of 100 mW/cm² for 60 s and a gap of 0.25 mm.

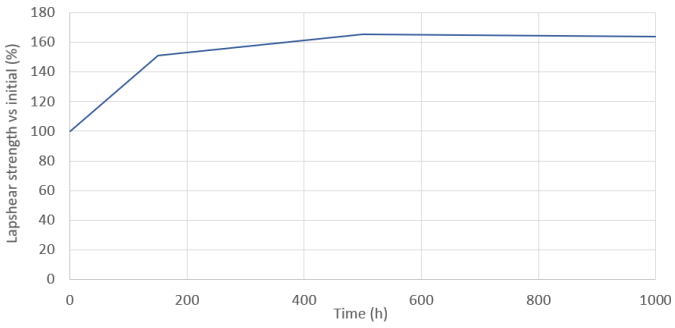
PC/PC	14 ± 1
PMMA/PMMA	5,5 ± 1
FR4/FR4	16 ± 1
PC/ABS	7 ± 1
Clear PA/Clear PA	8*
PC/Rigid PVC	7*
PC/Aluminum	17 ± 1
PC/Stainless Steel	14 ± 1
Glass/Glass (compression)	23 ± 1

*Substrate Failure

HEAT AGING

Lapshear Strength (ISO 4587) after aging @ 80 °C

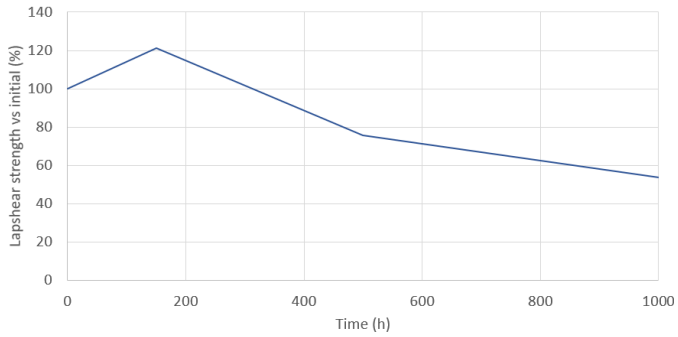
Samples were prepared using LED 405 nm irradiance at 100 mW/cm² for 60 s and a gap of 0,25 mm in FR4/FR4.



HEAT/HUMIDITY AGING

Lapshear strength (ISO 4587) @ 23 °C after aging under humid conditions

Samples were prepared using LED 405 nm irradiance at 100 mW/cm² for 60 s and a gap of 0,25 mm in FR4/FR4. 85% RH and 85 °C.



CONVERSIONS

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = in
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·mm x 0.142 = oz·in
mPa·s = cP

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