

Sales Centre for Sales, Advice + Orders T +61 8 9209 7400 hello@beyondtools.com

## CAN OF ALL PURPOSE BLACK MARKING LASERBOND 100 AEROSOL SPRAY





LaserBond 100 is an All Purpose laser bonding material for producing permanent black marks on most surfaces and materials and is ready to use. It is ethanol based which allows for a faster drying time. It can be used on a variety of substrates including glass, ceramic, stone and metals such as stainless steel, brass, aluminum, copper, titanium, tin, nickel and many others.

LaserBond 100 Aersol Spray is ideal for use with a  $\overline{CO2}$  Laser. Laser bonding is an established technology that uses lasers to bond additive marking material to a wide variety of different substrates and is commonly used with CO2, Nd:YAG and Fiber lasers.

## Features:-

For Product Identification, Decoration, Branding and more Quick and Easy to Use Permanent & High Contrast Marking Will not Crack or Peel Resistant to Corrosion, Abrasion & Fading

Directions for Use:-

Shake the can well for about one minute before using. For best results, use between 50  $^{\rm o}$  and 90  $^{\rm o}$  F.

## In the Press:-

https://a-e-mag.com/features/laser-settings-when-using-laserbond-100-mark-glass FAQ:-

Q: What is the difference between CerMark, TherMark and LaserBond 100? A: All three products are similar in formulation and work with basically the same laser settings to produce permanent black marks; however, when first applied CerMark dries to a paint-like light tan color, TherMark dries to a powdery light gray color and LaserBond 100 dries to a powdery darker gray color. Q: Can LaserBond 100 be used on different substrate surfaces? A: Yes, LaserBond 100 is an All Purpose formulation and can be used on a variety of substrates including glass, ceramic, stone and metals such as stainless steel, brass, aluminum, copper, titanium, tin, nickel and many others.

Q: I want to try LaserBond 100. Should I use aerosol spray or liquid ink? A: It is recommended that you start with the aerosol spray for test and evaluation purposes. The aerosol spray cans are pre-mixed and ready to use which eliminates the need to dilute the Liquid Ink - you only need to concentrate on getting the correct coating thickness and laser settings as shown on the instruction sheet enclosed with each spray can. Once you've tried the aerosol and gotten some experience with spraying it and determining the correct laser parameters, you can switch to a foam or air brush application of the Liquid Ink when you begin marking larger quantities. The Liquid Ink is concentrated and needs to be diluted with denatured alcohol. Please follow the instructions shown on the enclosed instruction sheet and product label. You'll already be familiar with the proper coating thickness and it will be easy to switch if desired. There are considerable economic advantages for switching to the Liquid Ink when marking larger quantities, since a square inch of aerosol spray costs about \$0.03, while a square inch of Liquid Ink costs 0.01 or less depending on the container size Q. How do I apply LaserBond 100?



SKU		Option	Part #	Price
8725048			LBT100	\$158
Model				
Туре	Black Marking Aerosol Spray			
SKU	8725048			
Part Number	LBT100			
Brand	LaserBond			
Size	340g 12Oz Aerosol Can			
Technical - Main				
Colour Name	Black			
Safety				
Safety Data Classification	Flammable Aerosols - Category 1			
Material Safety Data Sheet (MSDS)	https://cdn.shopify.com/s/files/1/0588/3160/1843/files/LBT100_AEROSOL_SPRAY_CAN_INSTRUCTIONS v=1707808006			
Packaging + Shipping				
Shipping Weight (Gross)	1.48 kg			
Shipping Notes	This product is classified as 'Dangerous Goods' and generally does not qualify for FREE SHIPPING.			



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A: It is recommended that the aerosol spray be applied by holding the spray can approximately 6"  $\hat{a} \in$ " 8" from the surface and spraying directly onto it using a side-to-side motion. The Liquid Ink can also be applied by manually brushing it onto the surface using a foam brush or by spraying it using an air brush or spray gun. Always be careful to ensure a thin, even and smooth coat is applied. Any variation in the coating thickness such as drips, runs or brush marks will translate into variations in the final appearance of the resulting mark. Spraying usually provides the best results when properly applied.

Q: What is the best coating thickness?

A: A thin, even and smooth coating thickness of 0.001"  $\hat{e}^{(0)}$  0.002" (0.05mm) is best. A thicker coating will only require more laser power or slower speed and will also decrease the resolution of the resulting mark.

Q. How do I dilute LaserBond 100 Liquid Ink?

A: The Liquid Ink is a water-based concentrate that needs to be diluted with denatured alcohol (DNA) by at least 1:1 for manual application using, preferably, a foam brush OR by at least 2:1 for application using an airbrush or spray gun. It is recommended that the spray be applied by holding the nozzle about  $6^{\circ}8^{\circ\circ} 8^{\circ\circ}$  away from the surface and using a side  $\cdot$  to  $\cdot$  side motion to apply the LaserBond 100 directly onto the surface. Dilution ratios of up to 5:1 have proven to work successfully; however, you should start with these lower dilution guidelines and increase the amount of DNA until a smooth and even coat is achieved. The dilution with DNA is very important as it helps to break the surface tension and keeps the LaserBond 100 from beading up or separating/streaking on the substrate surface. Q. What kind of laser do I need?

A: LaserBond 100 products can be used with all commercially available laser marking systems including CO2, Nd:YAG, DPSS and Fiber lasers.

Q: Is LaserBond 100 dangerous or toxic?

A: No. Please carefully read the product label and SDS statement regarding application and worker safety.

Q. How much laser power should I use?

A: The power settings that work best for LaserBond 100 will vary depending on the type of laser being used. For example, with a 30 watt CO2 laser, marking on stainless steel requires 100% power and 50% - 60% speed (500 â€" 600nm/sec) with 500 â€" 600 dpi. Marking on aluminum requires 100% power at a much slower speed of 5% - 10% (50 â€" 100mm/sec) and 1000 dpi with the same laser. A more powerful laser will be able to make the same mark using faster speeds and/or a lower percentage of power. Also, aluminum, brass, copper and other soft, heat conductive metals will require higher powers and slower speeds. These metals will conduct heat away from the marking surface more quickly than steel or other hard metals, thus requiring more overall laser power on the substrate surface for a longer time in order to make a satisfactory mark. Power settings will vary depending on the laser used and the substrate material being marked, so refer to the suggested laser settings on the enclosed instruction sheet or on the **wwwskitsc5bondingtedmeentation** will be necessary in order to achieve the best results.

Q: My marks wash off after laser marking, what am I doing wrong? A: This is usually due to insufficient overall laser power and/or other laser parameters or focus issues. If problems persist, please contact us for more specific technical support.

Q. Can I get blacker marks with a thicker coating of LaserBond 100?

A: No. A thicker coating will not make the marks any darker and will only result in more power being needed to make the mark. It will also decrease the resolution and detail within the finished mark. A thin, even and smooth coating thickness of 0.001"  $\hat{a} \in$ " 0.002" (0.05mm) is best.

Q: How should I dispose of the excess LaserBond 100 on the substrate surface? A: LaserBond 100 is not hazardous and can be washed off with tap water in your sink. Please read the SDS for more information on proper disposal in accordance with federal, state and local regulations.

Q: Is LaserBond 100 FDA approved?

A: LaserBond 100 materials are not approved directly by the FDA as the FDA's role is to approve final products rather than component materials; however, the FDA has approved many of our customers' finished medical products such as surgical instruments and implants which have been marked using LaserBond 100. O: How should I store LaserBond 100 products and for how long?

A: All LaserBond 100 products should be stored in an upright position with the lids tightly closed. They are guaranteed for one (1) year from date of purchase; however, they should continue to work well for years to come provided they have been stored properly.

Q: Why can't the LaserBond 100 aerosol spray cans be shipped via air while the Liquid Ink products can be?

A: The aerosol cans contain alcohol-based materials and flammable, pressurized gases which are considered a safety hazard on airplanes by various government regulations; domestically - DOT 49 CFR and internationally - IATA, requiring special packaging, labeling, paperwork and handling which incurs considerable extra shipping expense; resulting in surface shipment designated as ORM-D which must go by truck within the continental US and Canada. The Liquid Ink is a non-flammable, water-based product and is not considered a safety risk.

Q: What do I use to clean up after using LaserBond 100?

A: LaserBond 100 products can be cleaned up using plain water in your sink. There is no hazard in allowing it to just go down the drain.

Q: How long will the marks last? How tough are they?

A: Marks made with LaserBond 100 are permanent and generally considered to be as durable as the surface of the substrate material itself. Physical testing has shown them to be resistant to several common strong acids, bases, organic solvents and extreme heat or cold as well as exhibiting good salt spray resistance, scratch resistance and long-term UV exposure.



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Q: Does LaserBond 100 work on glass and ceramic?

A: Yes, LaserBond 100 is an All-Purpose laser bonding material; however, glass and ceramic are very brittle and heat sensitive materials which require lower power and slower speeds. Please consult our laser setting charts for further guidance and information. It usually takes considerable experimentation to achieve good marks, but satisfactory results have been reported in most cases.

Q: Will LaserBond 100 work on lacquer coated metals like brass? A: No. If the metal has a protective coating on it, the coating must be removed before it can be marked. Most protective coatings will interfere with the process chemistry and the LaserBond 100 will not be able to bond to the surface of the metal. Removal of the protective coating can be accomplished using your laser and running your marking program on the substrate surface which will remove the protective coating in the area where you wish to mark while leaving the remaining area protected.

Q: Will LaserBond 100 work on anodized aluminum?

A: Yes, LaserBond 100 will work on some anodized aluminum surfaces, however, the types of anodized coatings vary significantly as do the aluminum alloys in the substrate, so they can prove to be very difficult to mark. The anodic coating can be removed using your laser and running your marking program on the substrate surface which will remove the coating in the area where you wish to mark while leaving the remaining area protected. It usually takes a considerable amount of experimentation to achieve good marks, but satisfactory results are usually reported.

Q: Will LaserBond 100 bonding materials work on stone surfaces? A: Yes, LaserBond 100 will work on polished stone surfaces like granite and marble; but most stone surfaces are rough and quite porous so a protective clear acrylic coating (Krylon) or special laser masking tape must be applied to the surface so the LaserBond 100 material will not be absorbed into the stone and cause a permanent stain or discoloring around the marking area. It usually takes some experimentation, but satisfactory results have been reported in most cases. Q. Why do I have to shake or stir the LaserBond 100 products before and during use?

A: All LaserBond 100 products contain heavy metal pigments which will settle quickly if not stirred or shaken before and during use. This is especially important in achieving a consistently thin, even and smooth coating.

Q: How do I know when I've sprayed the right amount LaserBond 100 material? A: Hold the spray can or air brush 6" â€" 8" inches from the substrate surface. It is important that the LaserBond 100 is applied in a thin, even and smooth coating using a side-to-side motion. Applying LaserBond 100 may require a little practice to obtain the correct coating thickness â€" which should be 0.001" - .002" (0.05mm) thick. A good exercise is to draw a line on white paper using a black marker and then spray only as much LaserBond 100 as is needed to make the line fade away and almost disappear.

Q: How do I keep the nozzle clean on the LaserBond 100 aerosol spray can? A: After use, the spray can nozzle should be cleaned by inverting the can and spraying until the mist becomes clear. Any excess material on the nozzle should be removed with water. The nozzle can be removed and soaked in warm water or alcohol if spraying difficulty is encountered.