

HG Tape Technology

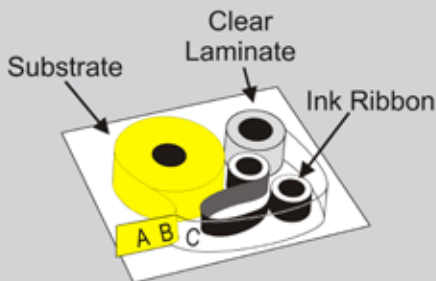
HGe cartridges – everything to make laminated labels is preloaded

To help make printing laminated labels on-demand reliable and trouble free, Brother™ preloads all consumables needed into a drop-in cartridge design.

This means that when you print a laminated label, everything needed to produce that laminated label is already resident within the cartridge. So the printed label that emerges is already laminated; there's no additional process necessary to produce the finished label. You can simply peel off the backing and apply the label to virtually any surface, immediately.

Each cartridge contains:

- **A supply roll of colored polyester face stock with an acrylic adhesive coated on both sides (with silicon liner on bottom side)**
- **Supply and take up rolls for a colored ink ribbon designed to transfer to the polyester lamination**
- **A supply roll of matte finish or glossy clear polyester lamination**



Laminated Tape Structure



Image is for illustrative purpose only

How your laminated label is printed – content is printed under the lamination

The print head transfers the ink to the underside of the lamination, and then a pressure roller combines the “printed” lamination to the face stock, and “pushes” the laminated label to the cutting position where the label is then cut to your desirable length.

The laminated labels are produced from a continuous “tape” available in 6 standard widths (36mm, 24mm, 18mm, 12mm, 9mm and 6mm) and in the following adhesive types:

- **Standard Adhesive** – Designed with a medium adhesive coating for general purpose applications with a smooth and flat surface
- **Extra-Strength Adhesive** – Designed with a soft adhesive coating to increase surface area contact on plastics or textured surfaces
- **Flexible ID** – Designed with a hard adhesive coating to apply adhesive to adhesive (flag label) or adhesive to laminate (wrap around) for labeling cables and wires
- **Tamper-Evident** – Designed with a special face stock that breaks apart if the laminated label is disturbed or removed

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Tape durability test results

Brother™ used an independent laboratory in Japan to conduct durability testing on all Brother™ laminated labels. These tests include measuring the performance for abrasion, fading, hot and cold temperatures, exposure to chemicals and moisture.



Abrasion Resistance

After 50 round-trip passes with a 1kg weighted sand eraser, Brother™ laminated tapes only came up slightly scratched with the characters underneath completely unaffected.



Chemicals and Water

Having bathed Brother™ laminated tapes in a variety of materials for two hours, they still managed to remain affixed to their surfaces with little damage. Even chemical spills, with a quick wiping, result in minimal damage.



Laminated Tape Adhesive Strength

Brother™ laminated tapes will adhere to almost any surface including: stainless steel, glass, PVC, acrylic, polypropylene, and polyester-coated wood. The tapes stand up to hot, cold, and humid conditions, and even adhere better when heated. Smooth, rough, flat or rounded surfaces are no problem for Brother™ laminated tapes.



Fade Resistance

Brother™ laminated tapes were attached to coated metal plates, and placed in a fade-inducing chamber at 83 degrees C for 100 hours to simulate a year in a sunny environment. Then they were placed in a chamber at 63 degrees C for 400 hours to simulate a year in, not only heat and light, but water as well. Only yellow tapes showed significant signs of fading while the others showed little sign of fading to the eye.



Dielectric Strength

In tests performed by Brother™, white P-touch® tapes with black characters began to lose their electric resistance at an applied voltage of 8kv, and lost their resistance entirely at 11kv. Most other color variations will have the same resistance.

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UL recognized Brother tapes



Brother™ has been given license to use this UL mark on the Brother™ tapes that have been tested and certified to become a UL recognized component under the UL-969 standard, Marking and Labeling Systems (ISBN 1-55989-895-X) categories PGJ12 and PGJ18. There are four categories under this standard:

1. **Marking and Labeling System Materials (PGGU2, PGGU8)** – Individual label components (i.e. label stocks, laminating adhesives and overlaminates)
2. **Marking and Labeling Systems (PGDQ2, PGDQ8)** – Finished systems that are supplied to end-product manufacturers that typically employ PGGU2 materials
3. **Printing Materials (PGJ12, PGJ18)** – Pre-printed or unprinted systems that have been evaluated for additional printing by end-product manufacturers using thermal transfer or laser printing techniques
4. **Limited Use Marking and Labeling Systems (PGIS2)** – Labels used in Cabinet and Box (UL50) applications and cord tags (flag type labels)

The suffix “2” indicates the recognition is established in accordance with UL requirements and the suffix “8” is with CSA requirements.

All material components that are used to print a label, including the printing process must be tested. UL also checks for quality control back to the material components supplier.

In simple terms, Brother™ defined the performance properties of specific tapes by part number, and UL certifies (tests) these tapes meet these properties and the results are published on the UL Website. An engineer or designer will then search for labels with properties that meet their specifications. The following Brother™ tapes are UL recognized:

- **Standard Adhesive HG and HGe Tapes**
- **Extra-Strength Adhesive TZ, TZe and HGe Tapes**
- **Flexible ID TZ and TZe Tapes**
- **Tamper-Evident TZ and TZe Tapes**

To see the listings, visit the UL Website at www.ul.com and search the Online Certifications Directory for “MH21016” under the UL File Number.

Brother Mobile Solutions, Inc.

**For more information, call 1-800-543-6144,
or visit www.brothermobilesolutions.com**

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