

**BRADY B-312 PermaSleeve Commercial Grade Wire Marking Sleeve**

TDS No. B-312

Effective Date: 5/25/2023

**Description:**

**GENERAL**

**Print Technology:** Thermal transfer

**Material Type:** Irradiated polyolefin heat shrink tubing (3:1 shrink ratio)

**APPLICATIONS**

Wire identification and insulation purposes

**RECOMMENDED RIBBONS**

Brady R4300 series for thermal transfer printing general purpose ribbon

**REGULATORY/AGENCY APPROVALS**

**UL:** B-312 is a UL Recognized Component to UL224 Extruded Insulated Tubing. See UL file E333786 for specific details.

For information on the Weee-RoHS compliance status for a Brady Product go to one of the following websites:

In Canada: [www.bradycanada.ca/weee-rohs](http://www.bradycanada.ca/weee-rohs)

In Europe: [www.bradyeurope.com/rohs](http://www.bradyeurope.com/rohs)

In Japan: [www.brady.co.jp/products/labelsuse/rohs](http://www.brady.co.jp/products/labelsuse/rohs)

All other regions: [www.bradyid.com/weee-rohs](http://www.bradyid.com/weee-rohs)

**SPECIAL FEATURES**

The operating temperature range is -30°C (-67°F) to +125°C (+257°F).

A minimum recovery temperature of 155°C (311°F) is recommended for B-312 PermaSleeve® marker.

B-312 is available in white and yellow.

**Details:**

MARKER SIZE		RANGE OF WIRE DIAMETER (in)	RANGE OF WIRE DIAMETER (mm)
1/8"	3CGS-125	0.046 - 0.110	1.17 - 2.79
3/16"	3CGS-187	0.062 - 0.150	1.57 - 3.81
1/4"	3CGS-250	0.094 - 0.215	2.39 - 5.46
3/8"	3CGS-375	0.125 - 0.320	3.18 - 8.13
1/2"	3CGS-500	0.187 - 0.450	4.75 - 11.43
3/4"	3CGS-750	0.250 - 0.700	6.35 - 17.78
1"	3CGS-1000	0.375 - 0.950	9.53 - 24.13
1 1/2"	3CGS-1500	0.500 - 1.450	12.7 - 36.83

Shrink Method: Any industrial grade heat gun may be used to shrink B-312 PermaSleeve® Commercial Grade Sleeve

B-312 tested/printed with R4300 Series thermal transfer ribbon.

PERFORMANCE PROPERTIES	TEST METHODS	AVERAGE RESULTS
Print Adherence	Per SAE AS5942 Samples tested after unrestricted shrink at 200°C for 3 minutes	Print is easily legible
Solvent Resistance	Per MIL-STD-202, Method 215K with change 1, May 4, 2018. Samples tested after unrestricted shrink at 200°C for 3 minutes	Print is easily legible

Shelf life is two years from the date of receipt for this product as long as this product is stored in its original packaging in an environment below 80° F (27° C) and 60% RH. It remains the responsibility of the user to assess the risk of using this product. We encourage customers to develop testing protocols that will qualify a product's fitness for use in their actual application.

**Trademarks:**

All S.I. Units (metric) are mathematically derived from the U.S. Conventional PermaSleeve® is a registered trademark of Brady Worldwide, Inc.

**Note:** All values shown are averages and should not be used for specification purposes.

Test data and test results contained in this document are for general information only and shall not be relied upon by Brady customers for designs and specifications, or be relied on as meeting specified performance criteria. Customers desiring to develop specifications or performance criteria for specific product applications should contact Brady for further information.

Product compliance information is based upon information provided by suppliers of the raw materials used by Brady to manufacture this product or based on results of testing using recognized analytical methods performed by a third party, independent laboratory. As such, Brady makes no independent representations or warranties, express or implied, and assumes no liability in connection with the use of this information.

**WARRANTY**

Brady products are sold with the understanding that the buyers will test them in actual use and determine for themselves their adaptability to their intended uses. Brady warrants to the buyers that its products are free from defects in material and workmanship, but limits its obligation under this warranty to replacement of the product shown to Brady's satisfaction to have been defective at the time Brady sold it. This warranty does not extend to any persons obtaining the product from the buyers. This warranty is in lieu of any other warranty, express or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose, and of any other obligations or liability on Brady's part. Under no circumstances will Brady be liable for any loss, damage, expense, or consequential damages of any kind arising in connection with the use, or inability to use, Brady's products.

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