

BRADY B-145BFR RIGID POLYETHYLENE TAG MATERIAL

TDS No. B-145BFR

Effective Date: 6/25/2025

Description:

GENERAL

B-145BFR is a tag material constructed from a 10-mil cross laminated polyethylene film and a thermal transfer printable topcoat.

APPLICATIONS

This multipurpose material can be used for a variety of tag applications including identification of multiconductor cables, inventory, equipment, lockout, safety warning repair and work-in-progress.

RECOMMENDED RIBBONS

Brady Series R6000 black ribbon

REGULATORY

Brady B-145BFR is RoHS compliant to 2005/618/EC MCV amendment to RoHS Directive 2002/95/EC.

Brady B-145BFR is a UL Recognized Flame Rated Component with a rating of UL 94 V-2. (UL listing: B-145BFR, where "B" designates the current version). See UL file E302978 for specific details. UL information can be accessed on-line at UL.com in the UL Product iQ area.

SPECIAL FEATURES

B-145BFR is supplied in a one-ply format suitable for thermal transfer printing on the Brady BMP71® or M710 Thermal Labeling System. After printing, B-145BFR is folded over and held together in a two-ply format with a pressure sensitive adhesive.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 - Complete Two-ply Tag Construction - Substrate - Adhesive	0.022 inches (0.559 mm) 0.010 inches (0.251 mm) 0.001 inches (0.026 mm)
Adhesion to: -Stainless Steel (Adhesive on backside of 1 ply tag)	ASTM D 1000 20-minute dwell 24-hour dwell	55 oz/in (60.2 N/100 mm) 47 oz/in (51.44 N/100 mm)
Tear Propagation Resistance - Single Layer - Complete Construction	ASTM D 1938 - Machine Direction - Cross Direction - Machine Direction - Cross Direction	0.59 lbs. (0.268 kg) 0.73 lbs. (0.331 kg) 1.20 lbs. (0.544 kg) 1.50 lbs. (0.680 kg)
Tensile Strength and Elongation - Single Layer - Complete Construction	ASTM D 1000 - Machine Direction - Cross Direction - Machine Direction - Cross Direction	65 lbs./in (1138 N/100 mm), 22% 73 lbs./in (1278 N/100 mm), 67% 128 lbs./in (2242 N/ 100 mm), 37% 147 lbs./in (2574 N/100 mm), 30 %

Hole Tear Strength is an internal Brady test method that measures the force required to tear the material surrounding a die-cut hole. In essence, it quantifies the hole's resistance to tearing. This test is conducted using an annually calibrated MTS machine, and MIL-T-43435 Type 2, Finish C, Size 3 lace.

Hole Tear Strength	*Brady TM-10130 - Complete Two-ply Construction - Single Layer	28 lbs. (12.70 kg) 15 lbs. (6.80 kg)
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*TM-10130 is a Brady Worldwide, Inc. laboratory test procedure.

The **performance properties** were tested on B-145BFR topcoat colored grey and printed with Brady Series R6000 thermal transfer ribbon using a Brady BMP71® Thermal Labeling System.

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
Long Term High Service Temperature	30 days at 212°F (100°C)	No visible effect
Long Term Low Service Temperature	30 days at 40°F (40°C)	No visible effect
Humidity Resistance	30 days at 100°F (37°C), 95%	No visible effect
UV Light Resistance	30 days in UV Sunlighter™ 100	Fade/Yellowing of Topcoat
Weatherability	ASTM G155, Cycle 1 30 days in Xenon Arc Weatherometer	Fade/Yellowing of Topcoat
Flammability	50W Vertical Burning Test (UL 94 Sec. 8) Average Burn Time	Less Than 10 seconds

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE
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Chemical Resistance Testing was performed at ambient temperature following a 24-hour dwell period. The testing protocol involved five cycles of 10-minute immersions in the designated chemical reagent, each followed by a 30-minute recovery period. After the final immersion, the samples were subjected to five rubs with a cotton swab.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGES
	R6000
Formula 409® Cleaner	No visual effect to topcoat coloring or print after rub. Slight adhesive ooze
Tap Water	No visual effect to print or topcoat coloring after rubs.
Isopropyl Alcohol	No visual effect to topcoat coloring and without rubs. Slight removal of topcoat coloring and print after rubs.

Shelf life is one year 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:

Formula 409® is a registered trademark of the Clorox Company
Sunlighter™ is a trademark of the Test Lab Apparatus Company
BMP71® is a registered trademark of Brady Worldwide, Inc.
ASTM: American Society for Testing and Materials (U.S.A.)
All S.I. Units (metric) are mathematically derived from the U.S. Conventional Units.

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.

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