Technical Data Sheet

## BRADY B-145 RIGID POLYETHYLENE TAG MATERIAL

TDS No. B-145
Effective Date: 06/11/2009

**Description:**

**GENERAL**
B-145 is a tag material constructed from an 9.5 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 R6210 black ribbon

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

**SPECIAL FEATURES**
B-145 is supplied in a one-ply format suitable for thermal transfer printing on the Brady TLS2200® Thermal Labeling System. After printing, B-145 is folded over and held together in a two-ply format with a pressure sensitive adhesive. B-145 is extremely tear resistant.

**Details:**

| PHYSICAL PROPERTIES | TEST METHODS | AVERAGE RESULTS |
|---|---|---|
| Thickness | ASTM D 1000<br>- Complete Two-ply Tag Construction<br>- Substrate<br>- Adhesive | <br>0.023 inches (0.584 mm)<br>0.010 inches (0.251 mm)<br>0.001 inches (0.026 mm) |
| Adhesion to:<br>-Stainless Steel<br>(adhesive on backside of 1 ply tag) | ASTM D 1000<br>20 minute dwell<br>24 hour dwell | <br>80 oz/in (88 N/100 mm)<br>90 oz/in (99 N/100 mm) |
| Hole Tear Strength<br>- Complete Construction | Brady LAB F003*<br>-Machine Direction<br>-Cross Direction | <br>25 lbs. (11 kg)<br>36 lbs. (16 kg) |
| Tear Propagation Resistance<br>- Single Layer<br><br><br>- Complete Construction | ASTM D 1938<br>-Machine Direction<br>-Cross Direction<br><br>-Machine Direction<br>-Cross Direction | <br>13 lbs. (6 kg)<br>11 lbs. (5 kg)<br><br>26 lbs. (12 kg)<br>28 lbs. (13 kg) |
| Tensile Strength and Elongation<br>- Single Layer<br><br><br>- Complete Construction | ASTM D 1000<br>-Machine Direction<br>-Cross Direction<br><br>-Machine Direction<br>-Cross Direction | <br>67 lbs/in (1173 N/100 mm), 413 %<br>82 lbs/in (1436 N/100 mm), 316 %<br><br>113 lbs/in (1979 N/ 100 mm), 392 %<br>149 lbs/in (2609 N/100 mm), 324 % |

* LAB F003 is a Brady Worldwide, Inc.laboratory test procedure.

The performance properties were tested on B-145 tapecolored grey and printed with Brady Series R6210 thermal transfer ribbon using a Brady TLS2200® 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% R.H. | No visible effect |
| UV Light Resistance | 30 days in UV Sunlighter™ 100 | No visible effect |
| Weatherability | ASTM G155, Cycle 1 | No visible effect |

| | | |
|---|---|---|
| | 30 days in Xenon Arc Weatherometer | |

| PERFORMANCE PROPERTY | CHEMICAL RESISTANCE |
|---|---|

B-145 samples were tapecolored grey and printed with Brady Series R6210 thermal transfer ribbon using a TLS2200® Thermal Labeling System. The test was conducted at room temperature after a 24 hour dwell. The testing consisted of 5 cycles of 10 minute immersions in the specified chemical reagent followed by a 30 minute recovery period. After the last immersion, the samples were rubbed 5 times with a cotton swab.

| CHEMICAL REAGENT | SUBJECTIVE OBSERVATION OF VISUAL CHANGES |
|---|---|
| | R6210 |
| Formula 409® Cleaner | No visual effect to tapecoloring or print without rub. Complete removal of tapecoloring and slight print removal after rubs. |
| Tap Water | No visual effect to print or tapecoloring after rubs. |
| Citrus Cleaner | No visual effect to tapecoloring and slight print fade without rubs. Complete print and tapecolor removal after rubs. |
| Isopropyl Alcohol | No visual effect to print and slight removal of tapecoloring without rubs. No visual effect to print and slight tapecolor removal after rubs. |

Product testing, customer feedback, and history of similar products, support a customerperformance expectation of at least***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 degrees F (27 degrees C) and 60% RH* . We are confident that our product will perform well beyond this time frame. However, it remains the responsibility of the user to assess the risk of using such product. We encourage customers to develop functional testing protocols that will qualify a product's fitness for use, in their actual applications.

**Trademarks:**
Formula 409® is a registered trademark of the Clorox Company
Sunlighter™ is a trademark of the Test Lab Apparatus Company
TLS2200® 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.

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