Technical Data Sheet

BRADY B-654 POLYIMIDE MASKING TAPE

TDS No. B-654
Effective Date: 01/21/2019

Description:

GENERAL

Print Technology: None
Material Type: Polyimide
Finish: Gloss
Adhesive: Removable Silicone

APPLICATIONS

Brady B-654 is recommended for use as a high temperature mask, especially for use in printed circuit board applications.

REGULATORY APPROVALS

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
In Europe: www.bradyeurope.com/rohs
In Japan: www.brady.co.jp/products/labelsuse/rohs
All other regions: www.bradyid.com/weee-rohs

SPECIAL FEATURES

Brady B-654 has very good high temperature resistance. The material withstands solder fluxes, molten solder, and cleaning/degreasing solvents used in the manufacture of printed circuit boards. The tape removes cleanly with no adhesive residue from most surfaces.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Film -Adhesive -Total (excluding liner)	 0.0010 inch (0.025 mm) 0.0015 inch (0.038 mm) 0.0025 inch (0.063 mm)
Adhesion to: -Stainless Steel -Epoxy PC Board	ASTM D 1000 20 minute dwell 24 hour dwell 20 minute dwell 24 hour dwell	 13 oz/in (14 N/100 mm) 14 oz/in (15 N/100 mm) 13 oz/in (14 N/100 mm) 14 oz/in (15 N/100 mm)
Tack	ASTM D 2979 Polyken™ Probe Tack 0.5 second dwell	18 oz (515 g)
Tensile Strength and Elongation	ASTM D 1000 -Machine Direction	 31 lbs/in (543 N/100 mm), 58%
Dielectric Strength	ASTM D 1000	6500 volts

B-654 samples for Performance Properties were tested applied directly to aluminum and epoxy panels. Samples allowed to dwell 24 hours at room temperature prior to testing.

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
Short Term High Service Temperature	10 minutes at 464°F (240°C)	No visible effect on aluminum. Some bubbling on epoxy. Tape removed cleanly without adhesive residue.
Long Term High Service Temperature	30 days at 320°F (160°C)	No visible effect. Tape removed cleanly without adhesive residue.
Wave Solder Simulation	10 seconds in molten solder at 518°F (270°C)	No visible effect on aluminum, . Tape removed cleanly without adhesive residue.

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE

Samples were tested applied directly to aluminum and epoxy panels. Samples allowed to dwell 24 hours at room temperature prior to testing. Testing consisted of one 10 minute immersion in the listed chemicals at the specified temperatures.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE
Alphametals BIOACT® EC-7R™terpene cleaner at (40°C)	Slight edge lift
Isopropyl Alcohol at 175°F (80°C)	No visible effect
6% Alphametals 2110 saponifier at 158°F (70°C)	No visible effect
Deionized Water at 212°F (100°C)	No visible effect

Tape removed cleanly without adhesive residue in all solvent resistance test fluids.

Shelf Life:
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 applications.

Trademarks:
BIOACT® is a registered trademark of Petroferm, Inc.
EC-7R™ is a trademark of Petroferm, Inc.
Polyken™ is a trademark of Testing Machines Inc.
ASTM: American Society for Testing and Materials (U.S.A.)
All U.S. Conventional Units are mathematically derived from the S.I. (metric) 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.

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.

Copyright 2019 Brady Worldwide, Inc. | All Rights Reserved
Material may not be reproduced or distributed in any form without written permission.