# **TECHNICAL DATASHEET AFTC 8402 - 0.09" THICK**

## **PRODUCT DESCRIPTION**

This thin tape is designed to adhere to various surfaces. The thin adhesive film allows a good adhesive performance on a variety of molded parts. This series is in many situations virtually invisible and allows the usage of light weight, thin and small materials in many shapes and sizes. The coating 40, as used in the general purpose tapes ensures an excellent bond to many surfaces with high and medium surface energy levels and a high initial tack. The 8402 is recommended for more difficult to bond surfaces, as being used in today's modern electronic assembly industry.

Red PE Liner -

Acrylic Coating 40 -

Acrylic Coating 40

#### **TYPICAL APPLICATIONS**

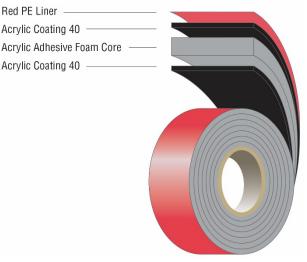
Various high and medium surface energy • plastics

H-O PRODUCTS

- Glass .
- Steel
- Aluminum
- Ceramics

#### **PRODUCT FEATURES & BENEFITS**

Excellent UV, aging, solvent and high temperature resistance (+100°C to +160° Celsius)



| TECHNICAL DATA                    | VALUE                      | TEST METHOD /<br>STANDARD |
|-----------------------------------|----------------------------|---------------------------|
| THICKNESS                         | 0.09" ±15%                 |                           |
| COLOR                             | Black+                     |                           |
| MATERIAL / SUBSTRATE              | Coated Acrylic Foam        |                           |
| CORE                              | Acrylic Adhesive Foam Core |                           |
| ADHESIVE TYPE                     | Acrylic Coating 40         |                           |
| ADHESIVE SYSTEM                   | Permanent Adhesive         |                           |
| ADHESIVE SIDE                     | Double Sided Adhesive      |                           |
| LINER                             | Red PE liner               |                           |
| DENSITY                           | 52 lb/ft <sup>3</sup>      |                           |
| MINIMUM TEMPERATURE RESISTANCE    | -40°F                      |                           |
| SHORT-TERM TEMPERATURE RESISTANCE | 320°F                      |                           |
| LONG-TERM TEMPERATURE RESISTANCE  | 212°F                      |                           |
| 90° PEEL ADHESION                 | 17 lb/in                   | ASTM D3330                |
| DYNAMIC SHEAR STRENGTH            | 105 lb/in <sup>2</sup>     | ASTM D1002                |
| TENSILE STRENGTH                  | 105 lb/in <sup>2</sup>     | ASTM D897                 |
| STATIC SHEAR STRENGTH @ 72°F      | 1,000 grams*               | ASTM 3654                 |
| STATIC SHEAR STRENGTH @ 150°F     | 500 grams*                 | ASTM 3654                 |
| STATIC SHEAR STRENGTH @ 200°F     | 500 grams*                 | ASTM 3654                 |
| CELL STRUCTURE                    | Closed Cell                |                           |

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| SOLVENT RESISTANCE                  | Excellent    |  |
|-------------------------------------|--------------|--|
| UV RESISTANCE                       | Excellent    |  |
| RECOMMENDED APPLICATION TEMPERATURE | Minimum 59°F |  |

NOTES: +All "Black" tapes have a gray core and black adhesive

\*Weight that 1/2 square inch will hold 10,000 minutes (7 days).

| SHELF LIFE/STORAGE             |   |  |
|--------------------------------|---|--|
| SHELF LIFE                     | 18 months   |  |
| RECOMMENDED STORAGE CONDITIONS | Store in its original package and in a dry place between 39.2°F and 100.4°F |  |

## CLEANING

To clean your light and medium contaminated substrates, use an isopropanol/alcohol solution (IPA). When cleaning your substrate, a tear free, light colored paper towel is required. Wipe the substrate in one direction using the one cloth method (one cloth with cleaner) or a two-cloth method (one cloth with cleaner and one dry cloth to follow) is acceptable if you are short on time. Repeat these steps until your cloth is clean and free of any contaminants. For heavily contaminated substrates, use a cleaning agent such as MEK, Heptan or Acetone. These cleaning agents may leave a residue which would have to be removed using the IPA cleaner.

### ABRASION

When bonding to raw aluminum, abrading of the surface is a must. The oils used in the waltzing of the aluminum are pressed into the pores of the material. To remove these oils, that will influence the bond, we recommend using abrasive pads to ensure the proper level of abrasion without damaging your substrates. Besides raw aluminum, abrading is a method utilized to help improve your bond. After the abrasion process is completed, remove any residue using an IPA cleaner following the methods mentioned above.

### PRIMER

The use of a primer is recommended when bonding to some low surface energy substrates. Examples include, different types of polymers, powder coated metals, or porous materials such as wood, cork, stone or concrete. Primers are also used to help speed up your production process. The AFTC line can take up to 72 hours to reach its end-strength. The use of a primer ensures the end-strength will be achieved within 20 minutes.

H-O Products offers two primers; the primer 33 and the primer 101. Determining which one of these primers is suitable for your application ultimately depends on the substrates and environmental influences.

### PRESSURE

AFTC tapes are pressure sensitive adhesives. Therefore, a minimum amount of pressure is required on the bond line to ensure the maximum adhesion to your substrates. This pressure should be applied in a rolling fashion. A hand roller or mechanical presser are the preferred methods. The pressure on the bond line must be a minimum of at least 14.5 psi.

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