

flexible tapes

Acuflex® Heat Shrink PET Films

- ▶ Uniform, unidirectional shrinkage
- ▶ In coil manufacturing, aids in formation of void-free construction
- ▶ Aids in flow control and surface finish in armature banding applications
- ▶ Wide range of product sizes to optimise application
- ▶ Many other general industrial uses

General description

Acuflex® polyester heat shrinkable films are specially processed to recover to near their original dimensions when heated. They are slit post-orientation to assure uniform, unidirectional shrinkage.

76850, 76851 and 76855 tapes are identical in composition. The two differ in the degree of molecular orientation that provides the shrinkage characteristics. As with most polyester films, 76850 and 76851 tapes should be restricted to processes carried out below 356°F (180°C). Above this temperature, these materials will lose strength, and become less effective as forming or molding aids.

Application

Acuflex® polyester shrink tapes are recommended for any general industrial application requiring a uniform shrink force such as composite shaft and tube consolidation as well as electrical component manufacturing. They are especially useful during the initial construction and/or the insulating phase of form wound electrical coils. These films are also suggested of use when curing glass banding materials on armatures and commutators. A key property of these tapes is shrinkage force, defined as the pressure felt by the underlying object. Shrinkage force can be used as a guide in determining the type and quantity of tape needed for any particular application. As an example, in molding the ground insulation on form-wound coils, 76851 or 76855 tape may be better suited than 76850 tape because the insulating material is difficult to compress and mold. When the material is readily compressible, however, 76850 tape may be used to avoid bumps and wrinkles from excessive pressure.

Processing

Factors governing the amount of shrinkage force (aside from degree of orientation) are tape thickness, number of layers and processing temperatures. Two mil tapes will exert twice the shrinkage force of one mil tape. Two layers of one mil tape will exert twice the force of one layer of one mil tape. Maximum shrinkage force is seen between 212°F and 285°F (100°C and 140°C). Beyond 285°F (140°C) shrinkage force will rapidly decline but will recover when cooled, provided that 430°F (220°C) has not been reached at any time.

76873, 76864 and 76865 shrinkable films are coated on one side with a release agent to aid in their removal from the part after processing. 76864 and 76865 tapes utilize a PTFE coating for those applications where a silicone coating is not desirable.

Health and safety

Material Safety Data Sheets defining the known hazards and describing safety precautions appropriate for this product are available upon request from Von Roll USA, Inc., 200 Von Roll Drive, Schenectady, New York 12306 (518) 344-7100. Similar information sheets for solvents and other chemicals used with this product may be obtained from the appropriate supplier and used accordingly.

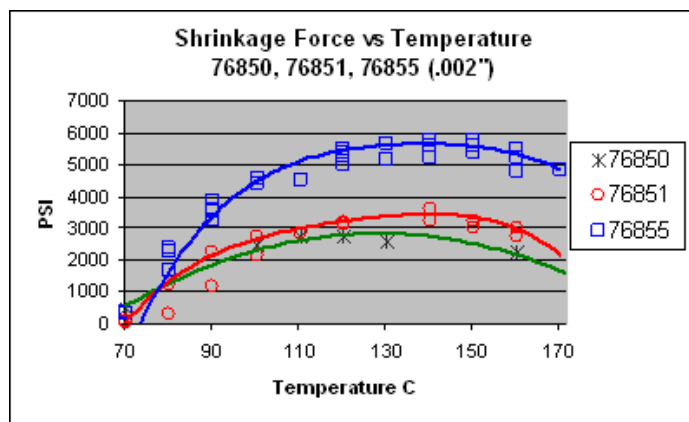
Standards

The properties shown in this data sheet are typical values only, and should not be used as a basis for preparing specifications. Contact our Customer Service department, (518) 344-7100 for assistance in preparation of specifications for your specific system application.

Typical Properties

| | Thickness | Shrink | Shrink Force | | Release Coating | Std. Roll Length | |
|--------------|-----------------|--------|---------------|----------------------------------------|-----------------|------------------|--------------|
| 76850 | .001" (.0254mm) | 6% | 2500 (17.24) | lb/in ² (N/m ²) | n/a | 750 (228) | Ln. Ft. (LM) |
| | .002" (.0508mm) | 6% | 4500 (31.03) | lb/in ² (N/m ²) | n/a | 360 (110) | Ln. Ft. (LM) |
| | .003" (.0762mm) | 6% | 7000 (48.27) | lb/in ² (N/m ²) | n/a | 240 (79) | Ln. Ft. (LM) |
| | .005" (.127mm) | 6% | 12500 (86.21) | lb/in ² (N/m ²) | n/a | 160 (49) | Ln. Ft. (LM) |
| 76851 | .001" (.0254mm) | 12% | 2500 (17.24) | lb/in ² (N/m ²) | n/a | 750 (228) | Ln. Ft. (LM) |
| | .002" (.0508mm) | 12% | 4500 (31.03) | lb/in ² (N/m ²) | n/a | 360 (110) | Ln. Ft. (LM) |
| | .003" (.0762mm) | 12% | 7000 (48.27) | lb/in ² (N/m ²) | n/a | 240 (79) | Ln. Ft. (LM) |
| | .005" (.127mm) | 12% | 12500 (86.21) | lb/in ² (N/m ²) | n/a | 160 (49) | Ln. Ft. (LM) |
| 76864 | .001" (.0254mm) | 12% | 2500 (17.24) | lb/in ² (N/m ²) | PTFE | 750 (228) | Ln. Ft. (LM) |
| | .002" (.0508mm) | 12% | 4500 (31.03) | lb/in ² (N/m ²) | PTFE | 360 (110) | Ln. Ft. (LM) |
| | .003" (.0762mm) | 12% | 7000 (48.27) | lb/in ² (N/m ²) | PTFE | 240 (79) | Ln. Ft. (LM) |
| | .005" (.127mm) | 12% | 12500 (86.21) | lb/in ² (N/m ²) | PTFE | 160 (49) | Ln. Ft. (LM) |
| 76873 | .001" (.0254mm) | 12% | 2500 (17.24) | lb/in ² (N/m ²) | Silicone | 750 (228) | Ln. Ft. (LM) |
| | .002" (.0508mm) | 12% | 4500 (31.03) | lb/in ² (N/m ²) | Silicone | 360 (110) | Ln. Ft. (LM) |
| | .003" (.0762mm) | 12% | 7000 (48.27) | lb/in ² (N/m ²) | Silicone | 240 (79) | Ln. Ft. (LM) |
| | .005" (.127mm) | 12% | 12500 (86.21) | lb/in ² (N/m ²) | Silicone | 160 (49) | Ln. Ft. (LM) |
| 76855 | .001" (.0254mm) | 20% | 2500 (17.24) | lb/in ² (N/m ²) | n/a | 750 (228) | Ln. Ft. (LM) |
| | .002" (.0508mm) | 20% | 4500 (31.03) | lb/in ² (N/m ²) | n/a | 360 (110) | Ln. Ft. (LM) |
| | .003" (.0762mm) | 20% | 7000 (48.27) | lb/in ² (N/m ²) | n/a | 240 (79) | Ln. Ft. (LM) |
| | .005" (.127mm) | 20% | 12500 (86.21) | lb/in ² (N/m ²) | n/a | 160 (49) | Ln. Ft. (LM) |
| 76865 | .001" (.0254mm) | 20% | 2500 (17.24) | lb/in ² (N/m ²) | PTFE | 750 (228) | Ln. Ft. (LM) |
| | .002" (.0508mm) | 20% | 4500 (31.03) | lb/in ² (N/m ²) | PTFE | 360 (110) | Ln. Ft. (LM) |
| | .003" (.0762mm) | 20% | 7000 (48.27) | lb/in ² (N/m ²) | PTFE | 240 (79) | Ln. Ft. (LM) |
| | .005" (.127mm) | 20% | 12500 (86.21) | lb/in ² (N/m ²) | PTFE | 160 (49) | Ln. Ft. (LM) |

Typical Information



Shelf life

Acuflex® heat shrinkable polyester film products have exhibited no shelf life limitations when stored for periods of up to one (1) year under normal room temperature conditions of 77°F (25°C) and 50 percent relative humidity.

Availability

Thickness tolerance ± .005" (.127 mm)

Width tolerance ± .031" (.787 mm)

Polyester shrink film tapes are available in rolls from 3/4" to 20" wide. Standard rolls are on 1" cores and vary in length according to thickness. See chart above. This product is available from Von Roll USA, Inc. or from authorized Von Roll distributors. For the name of your distributor or for more information on this product, contact our Customer Service department, (518) 344-7100.

The product properties set forth in this data sheet are based on the results of testing of typical material produced by the affiliated companies of Von Roll Holding Ltd. (underneath referred as Von Roll). Some variation in product properties is typical. Comments or suggestions relating to any subject other than product properties are offered only to call the end-user's or other person's attention to considerations which may be relevant in the independent determination of the use and/or manner of use of product. Von Roll does not claim or warrant that the use of its product will have the results described in this data sheet or that the information provided is complete, accurate or useful. The user should test the product to determine its properties and its suitability for the intended use. Von Roll expressly disclaims any liability for any

damage, harm, injury, cost or expense to any person resulting directly or indirectly from that person's reliance on any information contained in this data sheet. Nothing contained in this data sheet constitutes representation or warranty as to any matter whatsoever. Von Roll makes no warranties whatsoever in this data sheet, expressed or implied, including any implied warranty or fitness for a particular use or purpose. Von Roll shall in no event be liable for incidental, exemplary, punitive or consequential damages.

A large, light blue watermark of the word "vonRoll" is positioned at the bottom of the page, spanning most of the width. The "v" is lowercase and the "R" is uppercase.

Von Roll USA, Inc.
Schenectady, NY 12306, USA
www.vonroll.com

PET Shrink Films

KBA 4OAXX 30-06-2006