

## Physical Properties and Colors of Cable Accessory Materials<sup>‡</sup>

Design Criteria	Flame Retardant Nylon 6.6	Glass Filled Flame Retardant Nylon 6.6	General Purpose Polypropylene	Weather Resistant Polypropylene	General Purpose ABS	General Purpose ABS	Weather Resistant ABS	Flame Retardant Polypropylene	Acetal	PVC
<b>Color</b>	Black, Natural	Black	Black	Black	Black	Natural	Black	Black	Black	Gray, White
<b>Part Number Suffix</b>	60, 69	None	None/109	100	None	20	0	None	None	810
<b>UL Flammability – UL 94</b>	V-0	V-0	HB	HB	HB	HB	HB	V-0	HB	V-0
<b>Gamma Radiation Resistance</b>	1x10 <sup>5</sup> Rads	N/A	1x10 <sup>5</sup> Rads	1x10 <sup>5</sup> Rads	N/A	N/A	N/A	N/A	N/A	N/A
<b>Water Absorption</b>	1.1% (24 hrs.)	0.7% (24 hrs.)	0.1% (24 hrs.)	0.1% (24 hrs.)	0.3% (24 hrs.)	0.3% (24 hrs.)	0.3% (24 hrs.)	0.15% (24 hrs.)	0.43% (24 hrs.)	0.3% (24 hrs.)
<b>UV Resistance</b>	Poor	Poor	Poor	Good	Poor	Fair	Good	Good	Good	Poor
<b>Maximum Continuous Use Temperature</b>	230°F (110°C)	230°F (110°C)	221°F (105°C)	221°F (105°C)	185°F (85°C)	185°F (85°C)	185°F (85°C)	257°F (125°C)	194°F (90°C)	122°F (50°C)
<b>Minimum Continuous Use Temperature</b>	-40°F (-40°C)	-40°F (-40°C)	-40°F (-40°C)	-40°F (-40°C)	-40°F (-40°C)	-40°F (-40°C)	-40°F (-40°C)	-40°F (-40°C)	-40°F (-40°C)	-40°F (-40°C)

<sup>‡</sup>TEFZEL is a registered trademark of E.I. du Pont de Nemours and Company.

<sup>‡</sup>For more detail and additional materials, see Selection Chart on Pages B1.2 – B1.3.

### Application Chart

Since Panduit manufactures adhesive backed mounts with a variety of adhesive types, this chart should be used as a guideline for choosing the best adhesive for often-encountered conditions. Each type of adhesive is rated good, fair or poor for some specific mounting surfaces and/or chemical environments.

### Mount Spacing

To determine the number of mounts to use in a given application, the following formula can be used as a guideline:

$$\frac{\text{Cable or weight (Lbs./ft.)}}{\text{Static Load rating of Mount (Lbs./mt.)}} = \text{Spacing} \frac{\text{Mounts}}{\text{Ft.}}$$

Surfaces	Rubber Based Foam Tape Mounts	Acrylic Based Foam Tape Mounts	Epoxy Applied Adhesive Mounts
Plastics	Good	Good	Good
Wood	Good	Good	Good
Glass	Fair	Good	Good
Painted Surfaces	Good	Good	Fair
Powder Coating	Good	Fair	Good
Metal	Good <sup>1</sup>	Good <sup>1</sup>	Good
Paper	Good	Good	Fair
Concrete, Stone, Masonry	Not Recommended	Not Recommended	Good
Chemical Resistance			
Water	Good	Good	Poor
Oil	Poor	Fair <sup>3</sup>	Good
Gasoline	Poor	Fair <sup>3</sup>	Fair
Dilute Acids	Poor	Fair <sup>3</sup>	Fair
Dilute Alkalis	Good	Fair <sup>3</sup>	Fair
Organic Solvents	Poor	Fair <sup>3</sup>	Not Recommended
Outdoor Exposure	Not Recommended	Good	Good <sup>2</sup>

1. Not recommended for use on copper or brass.

2. Mounts manufactured from outdoor material only. For specific applications, individual testing prior to extensive use is suggested.

3. Depends on concentration, exposure time, and chemical composition.

A.  
System Overview

B1.  
Cable Ties

B2.  
Cable Accessories

B3.  
Stainless Steel Ties

C1.  
Wiring Duct

C2.  
Surface Raceway

C3.  
Abrasion Protection

C4.  
Cable Management

D1.  
Terminals

D2.  
Power Connectors

D3.  
Grounding Connectors

E1.  
Labeling Systems

E2.  
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E3.  
Pre-Printed & Write-On Markers

E4.  
Permanent Identification

E5.  
Lockout/Tagout & Safety Solutions

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A.  
System  
Overview

## Selection and Use of Adhesive Mounts

Panduit adhesive mounts provide a quick, economical, and dependable method of supporting, routing, and protecting wires or cables. Some are used with Panduit cable ties and others can be used without cable ties. Adhesive backed mounts adhere to a variety of surfaces. This alternative to mechanical fasteners offers the advantage of lower installed cost with safe, easy to use, quality products.



B1.  
Cable Ties

B2.  
Cable  
Accessories

B3.  
Stainless  
Steel Ties

### Applications

- To route wires in control panels and switchboards
- To support bundles of wires away from moving mechanical devices
- Routing and harnessing cables, both indoors and out, to prevent safety hazards
- To organize flat cables in many locations with low profile construction
- Ideal for supporting wire bundles where holes cannot be made in the substrate
- To separate groups of wires for identification



C1.  
Wiring  
Duct

C2.  
Surface  
Raceway

C3.  
Abrasion  
Protection

### General Mount Guidelines

Panduit pressure sensitive adhesive (foam tape) mounts are intended to secure wire bundles or other light objects to smooth surfaces. These mounts are not designed to support excessive loads and should not be used when the maximum expected load exceeds the rated capacity of the mount.

C4.  
Cable  
Management

### Choosing the Right Adhesive

Panduit offers two standard pressure sensitive foam tapes which are available on most adhesive backed wiring accessories products. The general purpose tape is produced with a rubber based adhesive and is identified by an “-A” in the part number. This tape develops its strength extremely fast and can be used in environments with temperatures ranging from -20°F (-29°C) to 120°F (49°C). It is recommended that rubber based adhesive mounts dwell 2 hours after installation, prior to loading. Rubber based adhesive tape is the best choice for most adhesive mount applications, including powder coated surfaces.

D1.  
Terminals

D2.  
Power  
Connectors

D3.  
Grounding  
Connectors

Acrylic based adhesive tape is also available and is identified by an “-AT” in the part number. This tape is for use in environments where continuous exposure to temperatures ranging from -20°F (-29°C) to 180°F (82°C) is possible. Acrylic based adhesive develops its maximum strength over a longer period of time than rubber based adhesive. It is recommended that acrylic adhesive mounts dwell 8 hours after installation, prior to loading. Acrylic based adhesive tape is a good choice for environments with exposure to UV rays or temperatures above 120°F (49°C).

E1.  
Labeling  
Systems

E2.  
Labels

Panduit adhesive backed cable accessories are also available pre-installed with high bond acrylic-based adhesive. This adhesive can be used in applications with continuous use temperatures ranging from -31°F (-35°C) to 200°F (93°C), though higher temperatures may be possible for short-term exposure. High Bond cable accessories are recommended for use in demanding applications such as where high temperatures are required, or where fatigue loading is expected.

E3.  
Pre-Printed  
& Write-On  
Markers

E4.  
Permanent  
Identification

Panduit also offers a 2-part epoxy for use in applications where excessive loading is required, or where the surface to which the mount must be applied is porous rather than smooth. Panduit EMA adhesive is a 2-part epoxy cement which is packaged in convenient mixer cups containing an equal amount of resin and hardener. Peel the protective covering off and pop the center of the cup in to form a mixing bowl. Each cup is supplied with a mixer stick and contains enough epoxy to properly apply three EMS mounts. The resin and hardener should be thoroughly mixed together until the epoxy is a consistent and uniform color. The mixer stick can then be used to apply the adhesive to the mount. The epoxy should be forced into the grooves on the bottom of the mount to obtain optimum bond performance. The mount should be applied to the surface with light pressure and a back-and-forth twisting motion. Hardening of the epoxy begins five minutes after mixing at room temperature.

E5.  
Lockout/  
Tagout  
& Safety  
Solutions

F.  
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## Selection and Use of Adhesive Mounts (continued)

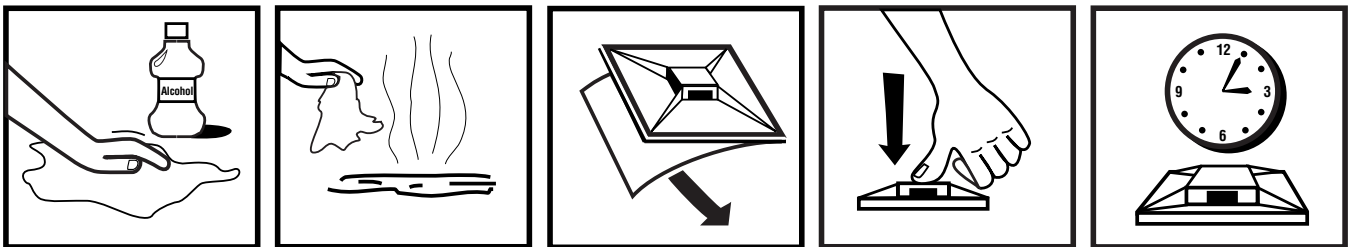
### Surface Preparation

For best results, Panduit adhesive mounts should be applied to clean, dry, grease-free surfaces. We recommend that the surface be cleaned prior to mount installation. For rubber and acrylic based foam tape adhesives, a blend of isopropyl alcohol and water 50/50 may be used to clean most surfaces.

For epoxy type adhesives, especially masonry surfaces, be sure to clean all loose particles away before mount installation. Some surface abrasion is recommended to achieve maximum strength. A light rubbing with medium grit emery cloth or sandpaper is best. Wash after abrading.

### Proper Installation Techniques For Pressure Sensitive Adhesive Mounts

For proper installation of adhesive mounts with foam tape, simply remove the release liner and place the mount in the desired location. Avoid touching the adhesive prior to positioning the mount. Apply firm pressure to the mount for 5 seconds to insure proper adhesion.



- 1) Clean surface with a clean cloth and isopropyl alcohol.
- 2) Allow surface to air dry.
- 3) Remove the release liner, being careful not to touch the adhesive.
- 4) Apply full thumb pressure for at least 5 seconds.
- 5) Allow mount to properly dwell.

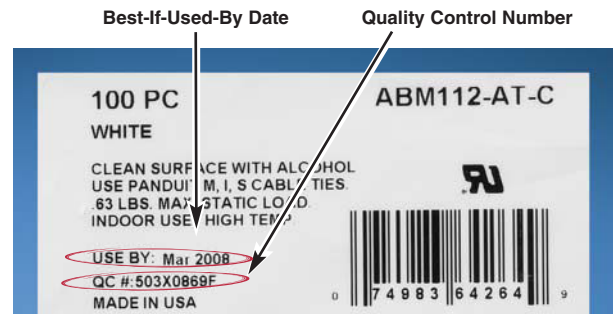
### Proper Storage Conditions

All Panduit adhesive products have an expiration date printed on the package label. Use the following storage guidelines:

1. For rubber and acrylic based foam tape adhesives, store in temperatures of 70°F (21°C) and 45% Relative Humidity (R.H.).
2. For epoxy type adhesives, store in temperatures of 40°F (4°C) to 75°F (25°C) and relative humidity not in excess of 45%. Storage in opened containers is not recommended. Using the guidelines above, the shelf life of foam tape is 3 years. Shelf life of epoxy is 1 year. Deviation from the recommended storage conditions may reduce the shelf life or adhesive strength. In any case, adhesive products should never be stored near heating vents or other heat sources, and storage in lower temperatures than those recommended may increase the shelf life.

### Stock Rotation

Adhesive mount inventory should be rotated in order to insure the quality of the adhesive foam tape. Each package of Panduit adhesive backed mounts has a quality control number and a best-if-used-by date on the package label. The best-if-used-by date provides the customer with an accurate way to control the rotation of inventory, and, as is the case with all Panduit products, the quality control number provides complete traceability for all components that go into a specific production run of product.



### Mount Removal

There is no simple or easy method for removing Panduit adhesives. A thin wire or razor blade can be moved in between the surfaces when removing foam tape mounts; however, the adhesive residue will remain on the surface. Epoxy adhesives may be removed with a commercial paint stripping solution.

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Steel Ties

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Duct

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