

**Mold Releases (Non-Liquid)** 

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COMPLETE FACTORY SET-UP TURNKEY SOLUTIONS

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**Section Guide** 

# **MOLD RELEASES (NON-LIQUID)**

Name	Carrier type	Adhesive type	Maximum use temperature	Color	Total thickness	Page
Filmcote® 1524		•	374°F (190°C)	Light grey (toolside) / dark grey (part side)	-	1
Toolwright 3	Extruded fluoropolymer	Silicone	500°F (260°C)	Light orange	0.003 inch (75 μm)	2
Toolwright 5	Extruded fluoropolymer	Silicone	500°F (260°C)	Light orange	0.005 inch (125 μm)	3
Tooltec® A005	PTFE / Glass	Silicone	500°F (260°C)	Light brown	0.005 inch (125 μm)	4
Tooltec® A007	PTFE / Glass	Silicone	500°F (260°C)	Light brown	0.007 inch (175 μm)	5
Tooltec® A012	PTFE / Glass	Silicone	500°F (260°C)	Light brown	0.012 inch (304 μm)	6
Tooltec® CA5	PTFE	Acrylic	400°F (204°C)	Light brown	0.0065 inch (163 μm)	7
Tooltec® CS5	PTFE	Silicone	500°F (260°C)	Light brown	0.0065 inch (165 μm)	8





### **Data Sheet**

# **FILMCOTE® 1524**

### Release film preventing the use of release liquids

### DESCRIPTION

Filmcote® 1524 is an engineered film developed as a replacement for release liquids on the surface of mold tools. Filmcote® 1524 remains on the part surface after demold providing protection from damage or contamination during subsequent process.

### BENEFITS

- No contamination of parts by release agents transfer.
- Excellent release reduces rework or cleaning of tooling.
- · Film protect parts during trim and drill operation.

### TECHNICAL DATA

Color Light grey (toolside) / dark grey (part side)

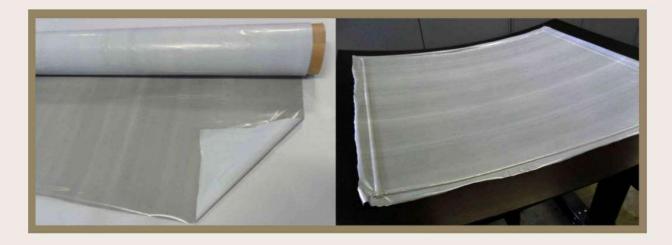
Maximum use temperature 374°F (190°C)

Film thickness 0.0015 inch (38 µm)

Elongation at break 400 %

Tensile strength 5497 psi (37.9 MPa)

Shelf life Unlimited when stored in original packaging at 72°F (22°C)



#### NOTES

- The film is supplied with two different surfaces, one side is light grey and the other side is dark grey. Care must be taken to apply the dark grey surface in contact with the prepreg and the light grey surface against the tool.
- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Airtech recommends testing prior to use.

Last updated: 2018-11-01





### **Data Sheet**

# **TOOLWRIGHT 3**

## Fluoropolymer release film with adhesive coating

### DESCRIPTION

Toolwright 3 is an extruded fluoropolymer film coated with silicone pressure sensitive adhesive. Toolwright 3 has a thinner film than Toolwright 5 version and can be more easily applied over complex contour surfaces. Toolwright 3 has high elongation, good tear strength, high temperature resistance and excellent clean up after removal.

#### BENEFITS

- Extend the life of worn tools avoiding cost of new tools.
- Tougher film is more tear resistant, easier and faster to apply.
- · Improved part surface quality.

### TECHNICAL DATA

Maximum use temperature 500°F (260°C)

Carrier type Extruded fluoropolymer

Adhesive type Silicone
Color Light orange
Total thickness 0.003 inch (7:

 $\begin{array}{ll} \text{Total thickness} & 0.003 \text{ inch } (75 \, \mu\text{m}) \\ \text{Film thickness} & 0.002 \text{ inch } (50 \, \mu\text{m}) \\ \text{Adhesive thickness} & 0.001 \text{ inch } (25 \, \mu\text{m}) \end{array}$ 

Elongation at break 350 %

Shelf life 18 months from date of shipment when stored in the original packaging at 72°F (22°C)

### COMMONLY USED SIZE

Width	Length
50 inches (127 cm)	18 yards (16.5 m)

• Other widths available, please contact Airtech for more information.



### NOTES

- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Airtech recommends testing prior to use.
- Watch a demo video of Toolwright 3 & 5 in the "Media Center" on our website.

Last updated : 2018-09-26





## **Data Sheet**

# **TOOLWRIGHT 5**

## Extruded fluoropolymer pressure sensitive tape

### DESCRIPTION

Toolwright 5 is an extruded fluoropolymer film coated with silicone pressure sensitive adhesive. The orange color is highly visible on most substrates in addition to offering high elongation and tensile strength.

#### BENEFITS

Adhesive thickness

- Provides excellent release from all common resin systems for multiple releases.
- Good adhesion to metal, composite, Tooling block and rubber tooling.
- · High elongation allows for easier covering of complex contour surfaces.
- Tougher film is more tear resistant and so it's easier to stretch over complex shapes without damage.

### TECHNICAL DATA

Maximum use temperature 500°F (260°C)

Carrier type Extruded fluoropolymer

 $\begin{array}{lll} \mbox{Adhesive type} & \mbox{Silicone} \\ \mbox{Color} & \mbox{Light orange} \\ \mbox{Total thickness} & 0.005 \mbox{ inch (125 $\mu m)} \\ \mbox{Film thickness} & 0.004 \mbox{ inch (100 $\mu m)} \end{array}$ 

Elongation at break 350 %

Shelf life 18 months from date of shipment when stored in original packaging at 72°F (22°C)

### COMMONLY USED SIZE

Width	Length
46 inches (117 cm)	18 yards (16.5 m)

0.001 inch (25 µm)

· Other widths available, please contact Airtech for more information.



### NOTES

- The maximum use temperature is dependent upon the duration at maximum temperature and is process, specific, Airtech recommends testing prior to use.
- Watch a demo video of Toolwright 3 & 5 in the "Media Center" on our website.

Last updated: 2018-09-26

### **Data Sheet**

# **TOOLTEC® A005**

### Reinforced PTFE coated fiberglass with silicone adhesive

#### DESCRIPTION

Tooltec® A005 pressure sensitive tape is designed to adhere to tool surfaces providing semi-permanent release and a reconditioned surface. It can be used on all types of molds, press platens, caul sheets or any surface that comes in contact with resins or adhesives. Release agents are not required on the mold surface thereby reducing cost and parts contamination. Tooltec® A005 is a reinforced mold surface reconditioning tape providing a semi-permanent release for flat tools. This product comes standard with a silicone pressure adhesive, but can also be supplied with an acrylic adhesive by special order.

### BENEFITS

- Provides semi-permanent release saving time spent cleaning tooling and reapplying release agents.
- Tools can be used to recondition worn or damaged tools for extended service, avoiding cost of remanufacture.
- Improve tool surface finish and aid resin flow for better part surface finish and reduced hand finishing.

### TECHNICAL DATA

 $\begin{array}{lll} \text{Maximum use temperature} & 500^{\circ}\text{F} \ (260^{\circ}\text{C}) \\ \text{Carrier type} & \text{PTFE/ Glass} \\ \text{Adhesive type} & \text{Silicone} \\ \text{Color} & \text{Light brown} \\ \text{Total thickness} & 0.005 \text{ inch} \ (125 \ \mu\text{m}) \\ \text{Film thickness} & 0.003 \text{ inch} \ (75 \ \mu\text{m}) \\ \text{Adhesive thickness} & 0.002 \text{ inch} \ (50 \ \mu\text{m}) \\ \end{array}$ 

Shelf life 18 months from date of shipment when stored in original packaging at 72°F (22°C)

### COMMONLY USED SIZES

Width	Length
1 inch (2.54 cm)	36 yards (33 m)
2 inches (5.08 cm)	36 yards (33 m)
36 inches (91 cm)	18 yards (16.5 m)
48 inches (122 cm)	18 yards (16.5 m)

· Other sizes available on special order.



#### NOTES

- Tooltec® A005 should be applied by carefully lifting the edge of the backing, then applying the adhesive side to the mold surface. The remainder of backing should then be carefully removed while pressing the Tooltec® A005 onto the mold surface with an Airsweep or other straight edge. A vacuum bag can then be applied to remove any residual air. A cure cycle under vacuum will provide the best results.
- The maximum use température is dependent upon the duration at maximum temperature and is process specific, Airtech recommends testing prior to use.

  Last updated : 2018-09-26



**Data Sheet** 

# **TOOLTEC® A007**

### Reinforced PTFE coated fiberglass with silicone adhesive

#### DESCRIPTION

Tooltec® A007 pressure sensitive tape is designed to adhere to tool surfaces providing semi-permanent release and a reconditioned surface. It can be used on all types of molds, press platens, caul sheets or any surface that comes in contact with resins or adhesives. Release agents are not required on the mold surface thereby reducing cost and parts contamination. Tooltec® A007 is a reinforced mold surface reconditioning tape providing a semi-permanent release for flat tools. This product comes standard with a silicone pressure adhesive, but can also be supplied with an acrylic adhesive by special order.

### BENEFITS

- Provides semi-permanent release saving time spent cleaning tooling and reapplying release agents.
- Tools can be used to recondition worn or damaged tools for extended service, avoiding cost of remanufacture.
- Improve tool surface finish and aid resin flow for better part surface finish and reduced hand finishing.

### TECHNICAL DATA

Maximum use temperature500°F (260°C)Carrier typePTFE/ GlassAdhesive typeSiliconeColorLight brownTotal thickness0.007 inch (175 μm)Film thickness0.005 inch (125 μm)Adhesive thickness0.002 inch (50 μm)

Shelf life 18 months from date of shipment when stored in original packaging at 72°F (22°C)

### COMMONLY USED SIZES

Width	Length
1 inch (2.54 cm)	36 yards (33 m)
2 inch (5.08 cm)	36 yards (33 m)
36 inches (91 cm)	18 yards (16.5 m)
48 inches (122 cm)	18 yards (16.5 m)

Other sizes available on special order.



#### NOTES

- Tooltec® A007 should be applied by carefully lifting the edge of the backing, then applying the adhesive
  side to the mold surface. The remainder of backing should then be carefully removed while pressing
  the Tooltec® A007 onto the mold surface with an Airsweep or other straight edge. A vacuum bag can
  then be applied to remove any residual air. A cure cycle under vacuum will provide the best results.
- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Airtech recommends testing prior to use.

  Last updated: 2018-09-26





### **Data Sheet**

# **TOOLTEC® A012**

### Reinforced PTFE coated fiberglass with silicone adhesive

#### DESCRIPTION

Tooltec® A012 pressure sensitive tape is designed to adhere to tool surfaces providing semi-permanent release and a reconditioned surface. It can be used on all types of molds, press platens, caul sheets or any surface that comes in contact with resins or adhesives. Release agents are not required on the mold surface thereby reducing cost and parts contamination. This product comes standard with a silicone pressure adhesive, but can also be supplied with an acrylic adhesive by special order.

### BENEFITS

- Provides semi-permanent release saving time spent cleaning tooling and reapplying release agents.
- Can be used to recondition worn or damaged tools for extended service, avoiding cost of remanufacture.
- Tooltec® A012 is a thicker more hard wearing version for longer life in more demanding applications.

### TECHNICAL DATA

Maximum use temperature500°F (260°C)Carrier typePTFE/ GlassAdhesive typeSiliconeColorLight brownTotal thickness0.012 inch (304 μm)

Film thickness 0.012 inch (304 µm)

Adhesive thickness 0.010 inch (254 µm)

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Shelf life 18 months from date of shipment when stored in original packaging at 72°F (22°C)

### COMMONLY USED SIZE

Width	Length
36 inches (91 cm)	18 yards (16.5 m)

· Other sizes available on special order.



#### NOTES

- Tooltec® A012 should be applied by carefully lifting the edge of the backing, then applying the adhesive side to the mold surface. The remainder of backing should then be carefully removed while pressing the Tooltec® A012 onto the mold surface with an Airsweep or other straight edge. A vacuum bag can then be applied to remove any residual air. A cure cycle under vacuum will provide the best results.
- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Airtech recommends testing prior to use.

Last updated : 2018-09-26





### **Data Sheet**

# **TOOLTEC® CA5**

### High elongation PTFE film coated with acrylic adhesive

### DESCRIPTION

Tooltec® CA5 is a PTFE film coated with a high temperature non silicone pressure sensitive adhesive. It is a non-reinforced tape allowing conformance to complex contours. Tooltec® CA5 can be used to seal masters and leaky tool surfaces while providing semi-permanent and contamination free part release.

### BENEFITS

- Provides semi-permanent release saving time spent cleaning tooling and reapplying release agents.
- · Improve tool surface finish and aid resin flow for better part surface finish and reduced hand finishing.
- Acrylic adhesive tape can be used where silicone adhesives are prohibited to reduce contamination risk.

### TECHNICAL DATA

Maximum use temperature 400°F (204°C)

Carrier type PTFE
Adhesive type Acrylic
Color Light brown

Total thickness 0.0065 inch (163  $\mu$ m) Film thickness 0.005 inch (125  $\mu$ m) Adhesive thickness 0.0015 inch (38  $\mu$ m)

Elongation at break 300 %

Shelf life 18 months from date of shipment when stored in original packaging at 72°F (22°C)

### COMMONLY USED SIZE

Width	Length
36 inches (91 cm)	18 yards (16.5 m)

· Other sizes available on special order.



#### NOTES

- Tooltec® CA5 backing is blue.
- Tooltec® CA5 should be applied by carefully lifting the edge of the backing, then applying the adhesive side to the mold surface. The remainder of backing should then be carefully removed while pressing the Tooltec® CA5 onto the mold surface with an Airsweep or other straight edge. A vacuum bag can then be applied to remove any residual air. A cure cycle under vacuum will provide the best results.
- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Airtech recommends testing prior to use.

Last updated : 2019-11-25

### **Data Sheet**

# **TOOLTEC® CS5**

### High elongation PTFE film coated with silicone adhesive

#### DESCRIPTION

Tooltec® CS5 is a PTFE film coated with a high temperature silicone pressure sensitive adhesive. It can be used to seal masters and leaky tool surfaces while providing semi-permanent and contamination free part release. Tooltec® CS5 is a non-reinforced mold surface reconditioning tape allowing conformance to complex contours and providing a semi-permanent release for contoured shapes.

#### BENEFITS

- Provides semi-permanent release saving time spent cleaning tooling and reapplying release agents.
- · Good elongation, so complex tools can be reconditioned and master models finished for molding.
- Improve tool surface finish and aid resin flow for better part surface finish and reduced hand finishing.

#### TECHNICAL DATA

Maximum use temperature 500°F (260°C)

Carrier type PTFE
Adhesive type Silicone
Color Light brown

 $\begin{array}{ll} Total \ thickness & 0.0065 \ inch \ (165 \ \mu m) \\ Film \ thickness & 0.005 \ inch \ (127 \ \mu m) \\ Adhesive \ thickness & 0.0015 \ inch \ (38 \ \mu m) \end{array}$ 

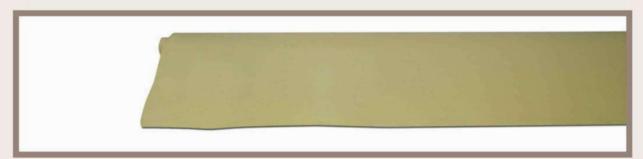
Elongation at break 300 %

Shelf life 18 months from date of shipment when stored in original packaging at 72°F (22°C)

#### COMMONLY USED SIZES

Width	Length
36 inches (91 cm)	18 yards (16.5 m)
48 inches (122 cm)	18 yards (16.5 m)

· Other sizes available on special order.



#### NOTES

- Tooltec® CS5 should be applied by carefully lifting the edge of the backing, then applying the adhesive side to the moud surface. The remainder of backing should then be carefully removed while pressing the Tooltec® CS5 onto the mold surface with an Airsweep or other straight edge. A vacuum bag can then be applied to remove any residual air. A cure cycle under vacuum will provide the best results.
- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Airtech recommends testing prior to use.

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