

SECTION GUIDE

RELEASE FILMS

Name	Description	Maximum use temperature	Elongation at break	Colour	Page
Wrightlon® 3700	Polyolefin	121°C	500 %	Blue	1
Wrightlon® 3900	Polyolefin	157°C	500 %	Red / Blue	2
Wrightlon® 4600	PMP	193°C	250 %	Blue / Clear	3
Wrightlon® 5200	ETFE	260°C	350 %	Blue / Red / Clear	4
A4000	FEP	260°C	300 %	Clear / Red / Violet / White	5
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Dahlar® Release Bag 125	Polyolefin, multi-layer	140°C	400 %	Green	9
Airtech MR1 / MR2	Fluoropolymer	315°C	400 %	Red / Beige	10
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Data Sheet

WRIGHTLON® 3700

Low cost release film for commercial and wind energy applications

DESCRIPTION

Wrightlon® 3700 is a release film that is designed for low cost applications. Wrightlon® 3700 will release from epoxy, polyester and vinyl ester resin systems.

BENEFITS

- Good value for low to medium temperature applications.
- Blue colour is visible on laminate surface.
- Available in P16 perforation style, especially for infusion applications.

TECHNICAL DATA

		Test method
Material type	Polyolefin	
Elongation at break	500 %	ASTM D882
Tensile strength	30 MPa	ASTM D882
Maximum use temperature	121°C	
Materials to avoid	Phenolic resins/Strong oxidizers	
Colour	Blue	
Shelf life	Unlimited when stored in original packaging at 22°C	

SIZES

Thickness	Width	Forms Available*
25 µm	up to 2 m	SHT
50 µm	up to 2 m	SHT

- For more sizes, see the *Commonly Used Sizes* chart in this section.
- Custom shapes and sizes are available, please contact Tygavac for more information.

* SHT = sheeting

NOTES

- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.
- Watch a demo video of Wrightlon® 3700 in the "Media Centre" on our website.

Data Sheet

WRIGHTLON® 3900

Inexpensive polyolefin release film

DESCRIPTION

Wrightlon® 3900 release film is a high elongation film which will exhibit excellent release properties from polyester, vinyl ester and epoxy resin systems. It will take temperature up to 157°C. It is also suitable for compaction and debulking operations. All standard perforations are available. Please see our perforation table in this section.

BENEFITS

- Good elongation reduces bridging in corners, so less rework on resin rich corners.
- Highly visible colour reduces risk of leaving film on cured parts.
- Inexpensive film reduces the cost of medium temperature vacuum bagging processes.

TECHNICAL DATA

		Test method
Material type	Polyolefin	
Elongation at break	500 %	ASTM D 882
Tensile strength	41 MPa	ASTM D 882
Maximum use temperature	157°C	
Materials to avoid	Compatible with most resin systems	
Colour	Red/Blue	
Shelf life	Unlimited when stored in original packaging at 22°C	

SIZES

Thickness	Width	Forms Available*
25 µm	up to 2.03 m	SHT
30 µm	up to 2.03 m	SHT
50 µm	up to 6.10 m	SHT
75 µm	up to 6.10 m	SHT

- For more sizes, see the *Commonly Used Sizes* chart in this section.
- Custom shapes and sizes are available, please contact Tygavac for more information.

* SHT = sheeting

NOTES

- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.

Data Sheet

WRIGHTLON® 4600

Cost effective polyolefin copolymer release film

DESCRIPTION

Wrightlon® 4600 release film is a low cost high temperature film for use in flat or limited curvature moulding applications up to 193°C. It will release from epoxy and phenolic resin systems. All standard perforations are available. Please see our perforation table in this section.

BENEFITS

- Inexpensive film reduces the cost of high temperature vacuum bagging process.
- Flat film can be applied quickly and without wrinkles over simple tooling and part shapes.
- Highly visible colour reduces risk of leaving film on cured parts.

TECHNICAL DATA

		Test method
Material type	PMP	
Elongation at break	250 %	ASTM D 882
Tensile strength	23 MPa	ASTM D 882
Maximum use temperature	193°C	
Materials to avoid	Polyester and vinyl ester resins	
Colour	Blue/Clear	
Shelf life	Unlimited when stored in original packaging at 22°C	

SIZES

Thickness	Width	Forms Available*
38 µm	up to 3.05 m	SHT, CF
50 µm	up to 1.37 m	SHT

- For more sizes, see the *Commonly Used Sizes* chart in this section.
- Custom shapes and sizes are available, please contact Tygavac for more information.



*SHT=Sheeting



CF=Centerfold

NOTES

- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.

Data Sheet

WRIGHTLON® 5200

High performance fluoropolymer release film

DESCRIPTION

Wrightlon® 5200 release film has an excellent elongation which ensures that it will conform to complex curvatures. It is capable of cure temperatures up to 260°C. This film will release from most resin systems and will provide a glossy finish when used directly on the laminate. All standard perforations are available. Please see our perforation table in this section.

BENEFITS

- Good elongation and strength reduces tearing and bridging in corners, so less rework on resin rich corners.
- Wider films reduce seams yielding faster bagging and safer cures for large parts.
- High visibility colours reduce risk of leaving film on cured parts or confusion between perforation styles.

TECHNICAL DATA

		Test method
Material type	ETFE	
Elongation at break	350 %	ASTM D 882
Tensile strength	48 MPa	ASTM D 882
Maximum use temperature	260°C	
Materials to avoid	Compatible with most resin systems	
Colour	Blue/Red/Clear	
Shelf life	Unlimited when stored in original packaging at 22°C	

SIZES

Thickness	Width	Forms Available*
15 µm	up to 1.22 m	SHT
25 µm	up to 3.05 m	SHT, CF
50 µm	up to 1.52 m	SHT

- For more sizes, see the *Commonly Used Sizes* chart in this section.
- Custom shapes and sizes are available, please contact Tygavac for more information.



*SHT=Sheeting



CF=Centerfold

NOTES

- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.
- Wrightlon® 5200 is available treated inside (TIS), outside (TOS), or both sides (TBS). Shelf life is 18 months from date of shipment when stored in original packaging at 22°C.

Last updated : 2018-12-20

Catalogue position : [Release films](#)

Data Sheet

A4000

High performance fluoropolymer release film

DESCRIPTION

A4000 release film is a high temperature and high elongation release film which will conform easily to the most complex curvatures. The film is capable of temperatures up to 260°C. This film will release from most resin systems and will provide a glossy finish when removed from the laminate. All standard perforations are available. Please see our perforation table in this section.

BENEFITS

- Good elongation and softness reduces bridging in corners resulting in less rework on resin rich corners.
- High visibility colours reduces risk of leaving film on cured parts or confusion between perforation styles.
- Excellent release from cured parts, film comes off easily and leaves a glossy finish.

TECHNICAL DATA

		Test method
Material type	FEP	
Elongation at break	300 %	ASTM D 882
Tensile strength	21 MPa	ASTM D 882
Maximum use temperature	260°C	
Materials to avoid	Compatible with most resin systems	
Colour	Clear/Red/Violet/White	
Shelf life	Unlimited when stored in original packaging at 22°C	

SIZES

Thickness	Width	Forms Available*
25 µm	up to 2.03 m	SHT
50 µm	up to 2.03 m	SHT

- For more sizes, see the *Commonly Used Sizes* chart in this section.
 - Custom shapes and sizes are available, please contact Tygavac for more information.
- *SHT = sheeting

NOTES

- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.
- A4000 is available bondable one side (BOS) or both sides (BBS). Shelf life is 18 months from date of shipment when stored in original packaging at 22°C.

Data Sheet

A4000 LFST

Heat shrinkable release film tube

DESCRIPTION

A4000 LFST is a heat shrinkable lay-flat tube which has been oriented in the transverse direction. When exposed to heat 121 to 176°C in a recirculating oven, tunnel oven or from a heat gun, the A4000 LFST material will shrink to closely fit the mandrel. A4000 LFST is ideal for providing a self-releasing cover for mandrels used in fabrication of hollow composite parts. A4000 release film is an approved material on all major aircraft specifications.

BENEFITS

- Prevents resin from bonding or attacking mandrel materials.
- Reduced labour hours for mandrel/ bladder clean up.
- Lowers extraction force required for mandrel/ bladder removal when used in combination with Airsock.

TECHNICAL DATA

		Test method
Material type	FEP	
Elongation at break	300 %	ASTM D 882
Tensile strength	> 21 MPa	ASTM D 882
Nominal shrinkage	15 %	
Maximum recommended use temperature	260°C	
Colour	Various	
Shelf life	12 months from date of shipment when stored in original packaging at 22°C	

SIZES

Thickness	Width Before Shrinkage	Width After Shrinkage	Forms Available*
50 µm	71.62 mm	60.71 mm	LFT (Blue)
50 µm	91.19 mm	77.72 mm	LFT (Red)
50 µm	96.01 mm	83.57 mm	LFT (Red)

- A4000 LFST is an engineered product for each application. Size, thickness, and color can be tailored to specific requirements up to maximum size of 20 cm LFT. This material may be slit and provided in centerfold and sheeting forms.



NOTES

- Minimums may apply, contact Airtech for application assistance.
- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.

Last updated : 2018-12-05

Catalogue position : **Release films**

Data Sheet

RF 242

Fluoropolymer release film

DESCRIPTION

RF 242 release film is a high temperature and high elongation release film which will conform easily to the most complex curvatures. The film is capable of temperatures up to 220°C. This film will release from most resin systems and will provide a glossy finish when removed from the laminate. All standard perforations are available. Please see our perforation table in this section.

BENEFITS

- Good elongation and strength reduces tearing and bridging in corners, so less rework on resin rich corners.
- Wider films reduce seams yielding faster bagging and safer cures for large parts.
- High visibility colours reduce risk of leaving film on cured parts or confusion between perforation styles.

TECHNICAL DATA

		Test method
Material type	ETFE	
Elongation at break	350 %	ASTM D 882
Tensile strength	48 MPa	ASTM D 882
Maximum use temperature	220°C	
Materials to avoid	Compatible with most resin systems	
Colour	Blue/Red	
Shelf Life	Unlimited when stored in original packaging at 22°C	

SIZES

Thickness	Width	Length	Weight / Roll	Forms Available*
15 µm	1.22 m	500 m	9.5 kg	SHT
20 µm	1.22/1.52 m	183 m	8.5 kg / 11 kg	SHT
25 µm	1.22/1.52 m	183 m	10 kg / 13 kg	SHT

- For more sizes, see the *Commonly Used Sizes* chart in this section.
- Custom shapes and sizes are available, please contact Tygavac for more information.

* SHT = sheeting

NOTES

- Maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.
- Please note 15µm is only available in colour blue.

Data Sheet

RF 260

Fluoropolymer release film

DESCRIPTION

RF 260 release film is a high temperature and high elongation release film which will conform easily to the most complex curvatures. The film is capable of temperatures up to 260°C. This film will release from most resin systems and will provide a glossy finish when removed from the laminate. All standard perforations are available. Please see our perforation table in this section.

BENEFITS

- High elongation and excellent tear strength allows it to easily conform to complex geometries.
- Applies a high gloss finish to the component surface.
- Can be supplied with numerous perforation styles.

TECHNICAL DATA

		Test method
Material type	FEP	
Elongation at break	300 %	ASTM D 882
Tensile strength	20 MPa	ASTM D 882
Maximum use temperature	260°C	
Materials to avoid	Compatible with most resin systems	
Colour	Clear/Red	
Shelf Life	Unlimited when stored in original packaging at 22°C	

SIZES

Thickness	Width	Forms Available*
20 µm	up to 1.22 m	SHT
40 µm	up to 1.22 m	SHT

- For more sizes, see the *Commonly Used Sizes* chart in this section.
- Custom shapes and sizes are available, please contact Tygavac for more information.

* SHT = sheeting

NOTES

- Maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.
- Please note clear is only available in 20 µm, red is available in all thicknesses.

Data Sheet

DAHLAR® RELEASE BAG 125

Economical release film

DESCRIPTION

Dahlar® Release Bag 125 is an economical film designed for release film applications. It can be used for cures up to 140°C and will release from most resins associated with aerospace, marine, and recreational products. This formulation has improved tear resistance and elongation over products previously offered as low temperature, multiple process films. Dahlar® Release Bag 125 is the ideal release film for polyester or vinyl ester resins as well as epoxies and phenolics. All standard perforations are available. Please see our perforation table in this section.

BENEFITS

- Good elongation and strength reduces tearing and bridging in corners, so less rework on resin rich corners.
- Softness of film reduces wrinkle marks on parts, improving surface finish and reducing hand finishing.
- Inexpensive film reduces the cost of medium temperature vacuum bagging processes.

TECHNICAL DATA

		Test method
Material type	Polyolefin, multi-layer	
Elongation at break	400 %	ASTM D 882
Tensile strength	65 MPa	ASTM D 882
Maximum use temperature	140°C	
Materials to avoid	Compatible with most resin systems	
Colour	Green	
Shelf life	Unlimited when stored in original packaging at 22°C	

SIZES

Thickness	Width	Forms Available*
from 25 - 75 µm	up to 6.6 m	SHT, CF, LFT
from 50 - 75 µm	up to 4.0 m	SHT (Embossed Film)

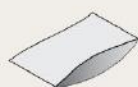
- For more sizes, see the *Commonly Used Sizes* chart in this section.
- Custom shapes and sizes are available, please contact Tygavac for more information.



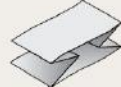
*SHT=Sheeting



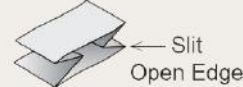
CF=Centerfold



LFT=Lay-Flat
Tubing



GT=Gusseted
Tubing



G=Gusseted

← Slit
Open Edge

NOTES

- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.
- Watch a demo video of Dahlar® Release Bag 125 in the "Media Centre" on our website.

Data Sheet

AIRTECH MR1/MR2

Ultra high temperature release films

DESCRIPTION

MR release films can take temperature up to 315°C. These films have a high elongation and a good conformability. This film will provide a smooth surface after the cure. MR1 release film is offered in 25 µm thickness and MR2 release film is offered in 50 µm thickness. All standard perforations are available. Please see our perforation table in this section.

BENEFITS

- Softness of film reduces wrinkle marks on parts, improving surface finish and reducing hand finishing.
- Excellent release from cured parts, film comes off easily and leaves a glossy finish.
- Good elongation reduces bridging in corners, resulting in less rework on resin rich corners.

TECHNICAL DATA

		Test method
Material type	Fluoropolymer	
Elongation at break	400 %	ASTM D 882
Tensile strength	31 MPa	ASTM D 882
Maximum use temperature	315°C	
Materials to avoid	Compatible with most resin systems	
Colour	Red/Beige	
Shelf life	Unlimited when stored in original packaging at 22°C	

SIZES

Thickness	Width	Length	Weight/Roll	Forms Available*
25 µm	1.22 m	152 m	10 kg	SHT
50 µm	1.22 m	77 m	10 kg	SHT

- Custom shapes and sizes are available, please contact Tygavac for more information.

* SHT = sheeting

NOTES

- This product is also available in Blue, lead times and minimum order quantities may apply.
- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.

Data Sheet

TF125

PTFE high temperature release film

DESCRIPTION

Tygavac release film TF125 is an unsupported, pure PTFE film. The film is capable of temperatures up to 260°C and will release from most resin systems. All standard perforations are available. Please see our perforation table in this section.

BENEFITS

- Excellent release from cured parts, film comes off easily and leaves a glossy finish.
- The film can be supplied with perforations to enable resin bleed out, air & volatile extraction.
- Heat resistance of material provides security during high temperature cures.

TECHNICAL DATA

		Test method
Material type	Fluoropolymer	
Elongation at break	225 %	ASTM D 882
Tensile strength	24 MPa	ASTM D 882
Maximum use temperature	260°C	
Materials to avoid	Compatible with most resin systems	
Colour	Beige	
Shelf Life	Unlimited when stored in original packaging at 22°C	

SIZES

Thickness	Width	Forms Available*
125 µm	up to 1 m	SHT

- Custom shapes and sizes are available, please contact Tygavac for more information.

* SHT = sheeting

NOTES

- Maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.

Data Sheet

THERMALIMIDE RCBS

Ultra high temperature release film

DESCRIPTION

Thermalimide RCBS is a high performance release film treated both sides for cure temperatures up to 405°C. Thermalimide RCBS is an ideal release film used during the forming process of thermoplastic materials and other high temperature applications.

BENEFITS

- High temperature resistance film can be used safely at high temperatures.
- Excellent release off cured parts, so film comes off easily and quickly.
- Flexibility for applying pressure over simple contoured shapes.

TECHNICAL DATA

		Test method
Material type	Polyimide	
Elongation at break	80 %	ASTM D 882
Tensile strength	240 MPa	ASTM D 882
Maximum use temperature	405°C	
Flammability (self extinguishing)	Yes	ATP-5034
Materials to avoid	None	
Colour	Amber	
Shelf life	Unlimited when stored in original packaging at 22°C	

SIZES

Thickness	Width	Length	Weight / roll	Forms available*
25 µm	1.52 m	78 m	4.3 kg	SHT
50 µm	1.52 m	78 m	8.6 kg	SHT
25 µm	2 m	78 m	5.65 kg	SHT
50 µm	2 m	78 m	11.3 kg	SHT

- Custom shapes and sizes are available, please contact Tygavac for more information.

*SHT = Sheeting

NOTES

- Maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.