TYGAVAC ADVANCED MATERIALS LTD

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SECTION GUIDE

RUBBER

TYGAVAC ADVANCED MATERIALS LTD

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Data Sheet

AIRCAST 3700 A/B

RTV high temperature casting compound

DESCRIPTION

Aircast 3700 A/B is a two component modified RTV compound designed for use in the manufacturing of flexible moulds and mandrels. Aircast 3700 A/B is also ideal for casting pressure pads. The high differential in thermal coefficient of expansion between Aircast 3700 A/B and a mould makes it useful in trapped rubber moulding.

BENEFITS

- Pressure intensifiers improve the moulded finish of parts reducing cost of rework and scrap parts.
- Thermal expansion properties can be used to develop additional pressure to aid moulding parts.
- Aircast can be cured at room temperature, reducing cost of intensifier moulds and improving accuracy.

TECHNICAL DATA

Properties - uncured:		Test method
Base/Curing agent mix ratio by weight	100 parts A to 12 parts B	
Base colour/ Curing agent colour	Tan/ Blue	
Viscosity at 25°C (mixed)	70,000 cps	
Properties - cured 24 hrs at 25°C:		
Density	1.25 g/cm^3	ASTM D 792
Maximum use temperature	232°C	
Elongation at break	180 %	ASTM D412
Hardness	50 +/-5 Shore A	ASTM D2240
Compression set (22 hrs at 177°C)	10 %	ASTM D395
Coef. of thermal expansion	252x10^{-6} cm/cm/°C	ASTM E831-14
Shelf life	12 months from date of shipment when stored in original packaging at 22°C	

SIZES

Packaging	Part A	Part B
4.08 kg Kit	3.63 kg (8 lbs)	0.45 kg (1 lb)
20.42 kg Kit	18.14 kg (40 lbs)	2.27 kg (5 lbs)

APPLICATION

Recommended Mixing Instructions:
Mix 100 parts base (Part A) with 12 parts curing agent (Part B) by weight. Place the material in a vacuum chamber to remove trapped air. As vacuum is drawn, the material will expand as much as four times its original volume. After 1 - 2 minutes, the material will recede to its original volume. Remove from vacuum chamber and carefully stir material to assist pouring.
Recommended Cures:
At 25°C, the pot life is 1 hour. Cure time: 24 hours. Nominally no cure shrinkage.
At 38°C, the pot life is 30 minutes. Cure time: 2 hours. Nominally 0.3% cure shrinkage.
At 65°C, the pot life is 10 minutes. Cure time: 30 minutes. Nominally 0.5% cure shrinkage.
At 149°C, the cure time is 5 minutes. Nominally 1% cure shrinkage.

NOTES

- For mould release, certain mould materials can cause curing inhibition, this can be checked by brushing a small quantity of Aircast 3700 over a localized area of the surface to be reproduced. If the Aircast 3700 is gummy or uncured after the curing time has elapsed, the mould surface is acting as an inhibitor. Silicone release agents will cause inhibition and must not be used. PS Tapes such as Tooltec®, Toolwright, Wrightlease or Teflease MG2 can be used to provide a suitable tool release surface.
- Longer life can be achieved by covering moulded Aircast 3700 with Teflease MG2 PS Tape.
- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.

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Catalogue position : Rubber

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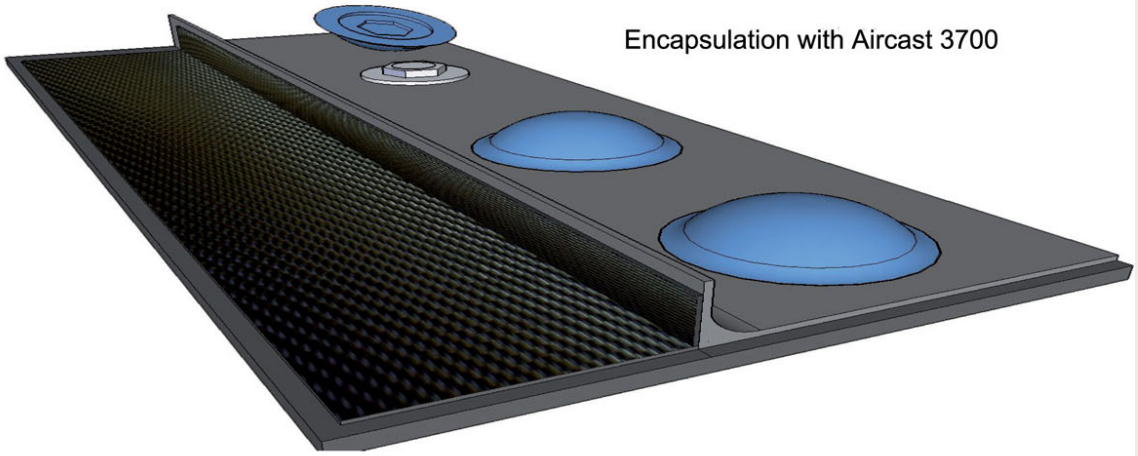
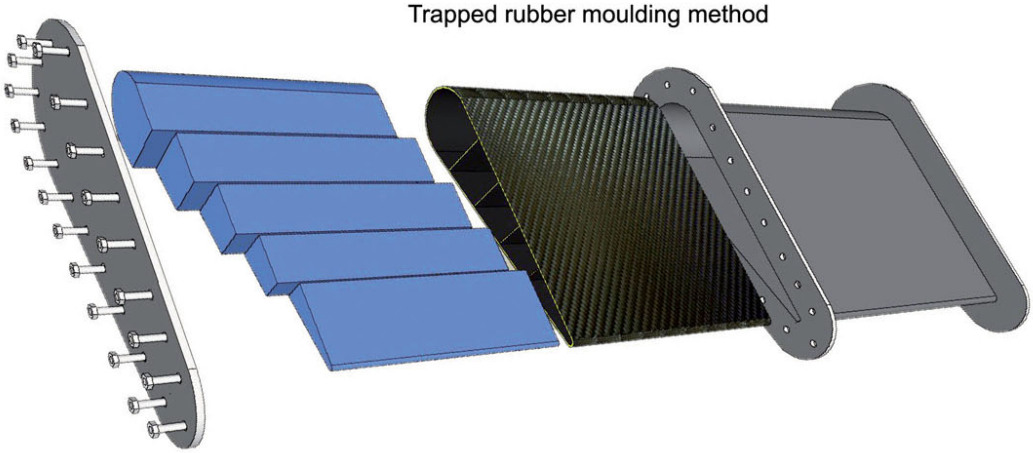
Data Sheet

AIRCAST 3700 A/B APPLICATION DIAGRAMS

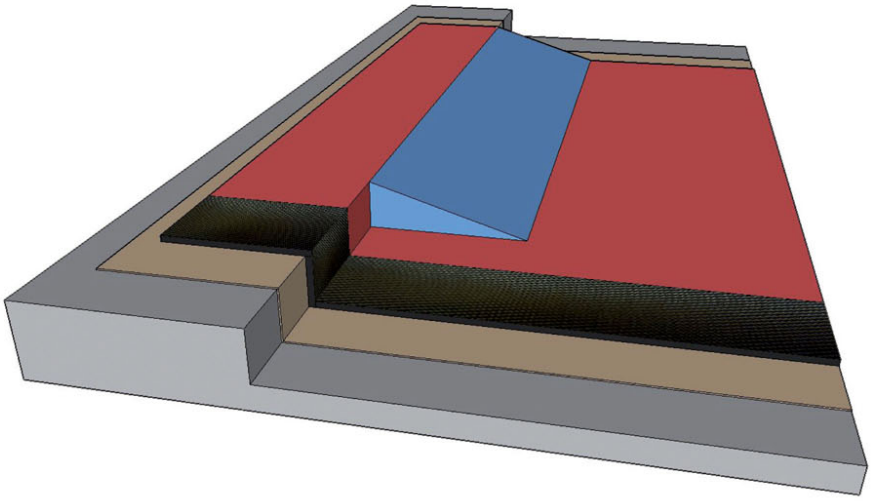
Encapsulation with Aircast 3700



Trapped rubber moulding method



Aircast 3700 Pressure pad



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Catalogue position : Rubber

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Data Sheet

AIRPAD

Uncured non-silicone tooling rubber

DESCRIPTION

Airpad is an uncured, non-silicone rubber for manufacture of pressure caul sheets, flexible mandrels, and rubber tooling. Airpad caul sheets improve part quality on the vacuum bag side of the part.

The Airpad pressure intensifier provides uniform pressure distribution during autoclave processing. Airpad will take high temperature similar to silicone rubbers but will not cause silicone contamination. Airpad is dimensionally stable when reinforced with Airtech Toolmaster Prepregs, which bond well and do not generate volatiles that could also cause delamination.

BENEFITS

- Reduce scrap with improved part quality due to better thickness control and corner consolidation.
- Reduce rework by eliminating surface wrinkles, voids, and porosity.
- Avoid part distortion due to uneven laminate consolidation during cure.

TECHNICAL DATA

Properties listed are typical for the fully cured material		Test method
Material type	Non-silicone rubber	
Colour	Black	
Maximum use temperature	204°C	
Elongation at break	400 %	ASTM D412
Hardness	70 Shore A	ASTM D2240
Tensile strength	8.96 MPa	ASTM D412
Shelf life	24 months from date of shipment when stored in original packaging at 22°C	
Storage conditions	Do not freeze	

SIZES

Thickness	Width	Length	Packaging Type
1.59 mm	137 cm	15.24 m	roll

APPLICATION

Moulding Guidelines:

- Mould Airpad off a part, dummy part, or mould which is stable at high temperature and capable of high pressure.
- Tack is temperature dependent and can be controlled with additional heat to assure adhesion to vertical surfaces, sharp corners, and complex shapes.
- Airpad is not self releasing and must be covered with a release material, such as Airtech A4000BOS bondable one side release film during the layup process.
- Teflease, Tooltec®, Wrightlease, and Toolwright can also be applied to cured Airpad, consult Airpad User Manual for detailed instructions.

Recommended Cure:

- Apply full vacuum throughout cure cycle and pressurize autoclave to 7 bar (100 psi), minimum recommended pressure is 3 bar (45 psi).
- Heat to 176°C (350°F) and hold for 2 hours, then cool to room temperature before removing vacuum and demoulding from master mould.

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 Airpad in the "Media Centre" on our website.

Last updated : 2019-01-17

Catalogue position : Rubber

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Data Sheet

AIRPAD HTX

A non-silicone tooling rubber for fabrication of caul sheets and flexible mandrels

DESCRIPTION

Airpad HTX is an uncured, non-silicone rubber for manufacture of pressure caul sheets, flexible mandrels, and rubber tooling. Airpad HTX has been developed for longer service life and can be used with liquid release agents. Airpad HTX caul sheets improved part quality on the vacuum bag side of the part.

Airpad HTX pressure intensifier provides uniform pressure distribution during autoclave processing. Airpad HTX will take high temperature similar to silicone rubbers but will not cause silicone contamination. Airpad HTX can be reinforced with Airtech Toolmaster® Prepregs, which bond well and do not generate volatiles that could also cause delamination.

BENEFITS

- Adheres well to A4000BOS and has a high temperature resistance for longer lasting caul sheet.
- Airpad HTX bonds to itself aggressively, making it easier to repair.
- Liquid release agents can be applied to cured Aipad HTX allowing for more complex intensifiers.

TECHNICAL DATA

Properties listed are typical for the fully cured material

		Test method
Material type	Uncured non-silicone rubber	
Colour	Grey	
Maximum use temperature	204°C	
Elongation at break	550 %	ASTM D412
Hardness	70 Shore A	ASTM D2240
Tensile strength	13.1 MPa	ASTM D412
Shelf life	24 months from date of shipment when stored in the original packaging	
Storage conditions	Do not freeze	

SIZES

Thickness	Width	Length	Packaging Type
1.59 mm	137 cm	15.24 m	roll

APPLICATION

Moulding Guidelines:

- Mould Airpad HTX off a part, dummy part or mould which is stable at high temperature and capable of high pressure.
- Airpad HTX has low tack, a light spray of Airtac 2 or use of a heat gun will aid layup onto vertical surfaces.
- Airpad HTX will have longer service life if covered with a release film such as Airtech A4000BOS bondable one side release film 50 µm (0.002 inches) thick, during the layup process.
- Liquid release agents should be tested prior to use on part manufacture. Consult Airpad HTX User Manual for detailed instructions.

Recommended Cure:

- Apply full vacuum throughout cure cycle and pressurise autoclave to 7 bar, minimum recommended pressure is 4 bar.
- Heat to 176°C and hold for 1 hour, then cool to room temperature before removing vacuum and demoulding from master mould.

NOTES

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

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Catalogue position : Rubber

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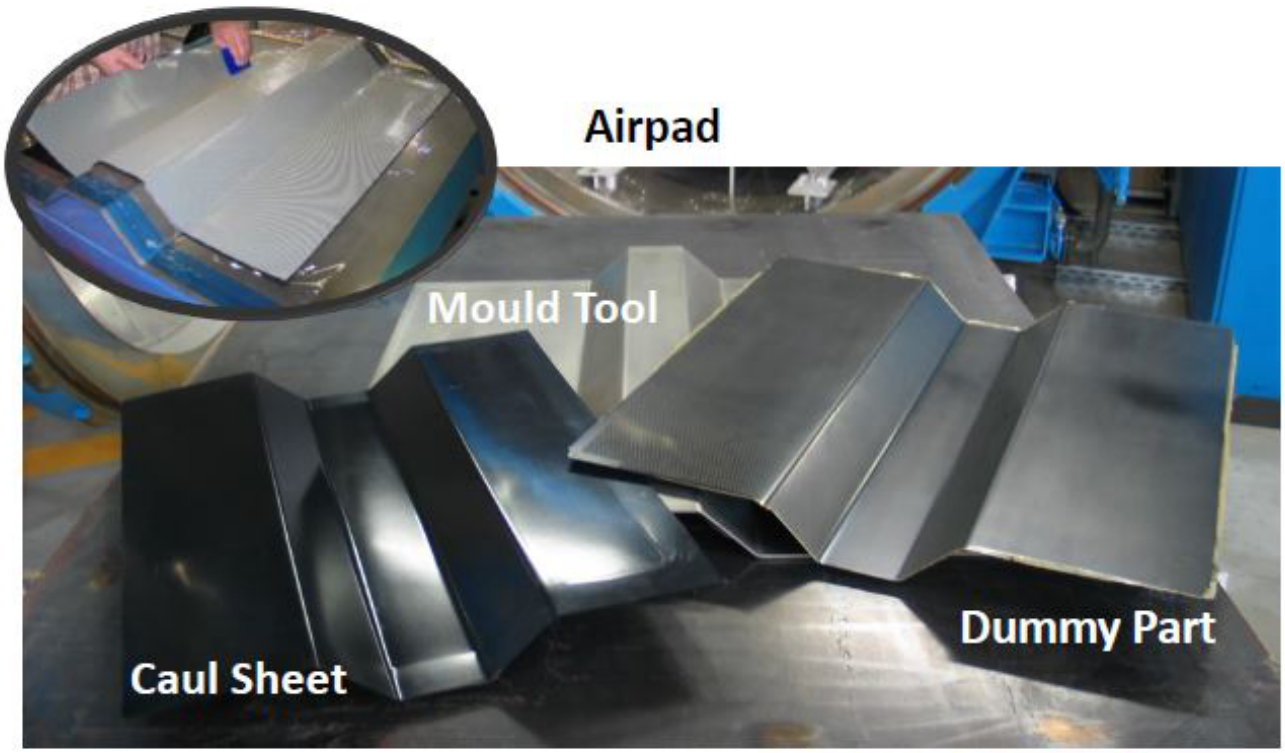
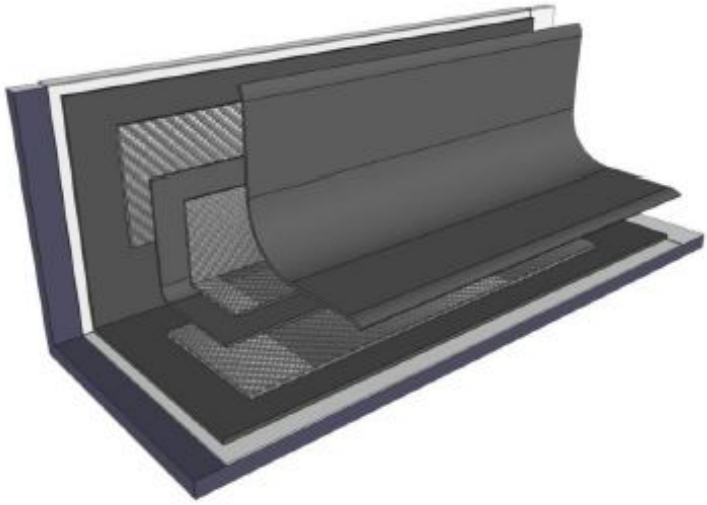
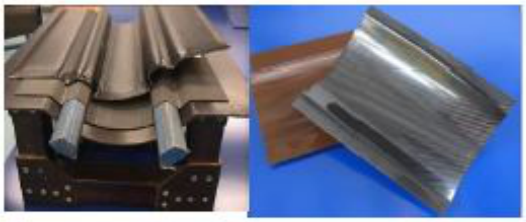
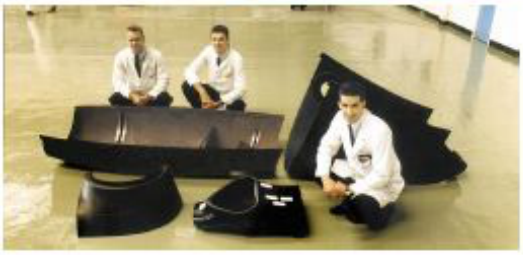
Data Sheet

EXAMPLES OF AIRPAD & AIRPAD HTX

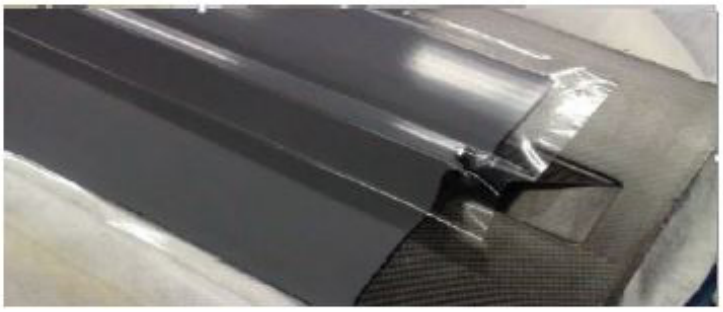








Airpad HTX



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Catalogue position : Rubber

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Data Sheet

PRESSURE STRIP

A pressure intensifier that eliminates excess resin in corners

DESCRIPTION

Pressure Strip is a butyl rubber tape used as an intensifier in corners where pressure is difficult to apply with only a vacuum bag. Pressure Strip is easily applied uncured on the prepreg layup and moulds to part shape during the cure cycle. Pressure Strip works from 120°C up to 230°C in autoclave or oven.

BENEFITS

- Eliminate resin rich corners on parts and reduce rework of parts and scrap.
- Simplify difficult bagging jobs with silicone free Pressure Strip (reducing contamination risk).
- An inexpensive alternative to re-tooling.

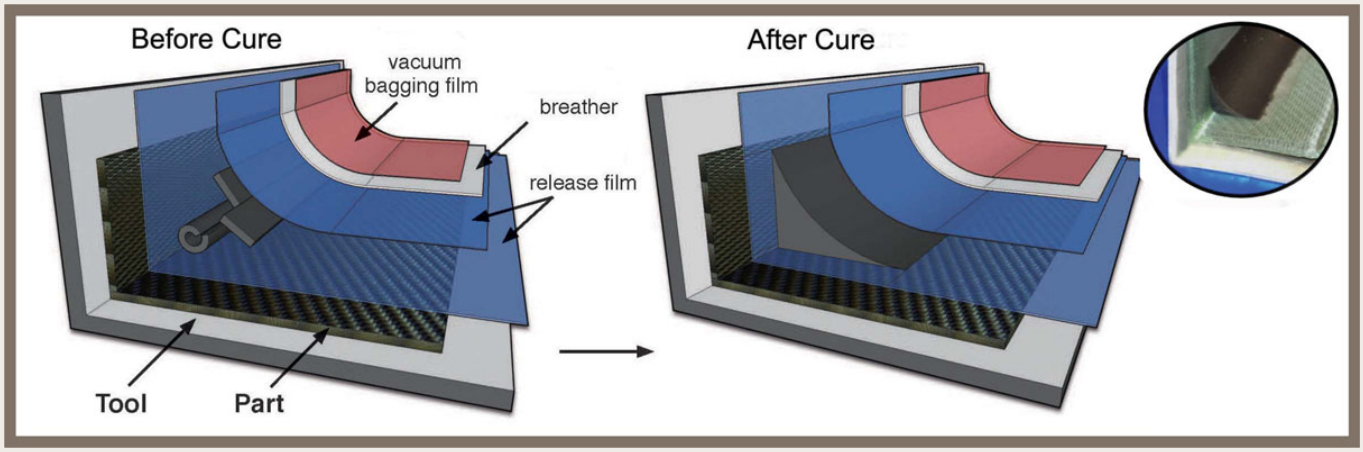
TECHNICAL DATA

Properties listed are typical for the fully cured material

Material type	Uncured butyl rubber
Colour	Black
Maximum use temperature	230°C
Shelf life	12 months from date of manufacture when stored in original packaging at 22°C
Storage conditions	Do not refrigerate

SIZES

Thickness	Width	Length	Packaging Type
3.17 mm	2.54 cm	7.62 m	28 rolls per case



APPLICATION

- Apply one or more rolled pieces of Pressure Strip in the corner radius on top of the release film layer.
- Apply one or more pieces of Pressure Strip on top of the rolled piece to allow the product to form a fillet during cure.
- Apply an additional layer of release film over the Pressure Strip layup.
- Complete vacuum bagging operation.
- A fillet will form during cure to prevent ply wrinkling and excessive resin buildup in the corner radius.

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 video of Pressure Strip in the "Media Center" on our website.

Last updated : 2018-10-25

Catalogue position : Rubber

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Data Sheet

AIRTECH 1050

Unsupported cured silicone rubber for vacuum bagging

DESCRIPTION

Airtech 1050 is a high grade silicone rubber that offers high reversion resistance and strength. It provides superior performance for manufacture of rubber tooling such as bladders, pressure intensifiers, and vacuum bags.

BENEFITS

- Cured silicone rubber caul sheets can improve part quality on the bag side of moulded parts.
- Avoid cure shrinkage problems by using cured silicone bonded with uncured material.
- Can be used over complex surface to produce smooth finish.

TECHNICAL DATA

		Test method
Material type	Cured silicone rubber	
Colour	Red	
Hardness	50 +/-5 Shore A	ASTM D2240
Continuous use temperature	232°C	
Elongation at break	700 %	ASTM D412 die A
Tensile strength	9.65 MPa	ASTM D412 die A
Compression set at 22 hrs. 177°C	28 %	ASTM D395, Method B
Shelf life	Unlimited when stored in original packaging at 22°C	

SIZES

Thickness	Width	Length	Packaging Type
1.02 mm	1.22 m +/- 0.64 cm	22.9 m	roll
1.52 mm	1.22 m +/- 0.64 cm	22.9 m	roll

NOTES

- Any silicone rubber has the potential to transfer. Silicone transfer investigation should be done by the user.
- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.

Last updated : 2018-10-25

Catalogue position : Rubber

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Data Sheet

AIRTECH 1024

Silicone rubber, cured and unsupported

DESCRIPTION

Airtech 1024 is a high grade silicone rubber that offers high reversion resistance and strength. It provides superior performance for manufacture of rubber tooling such as bladders, pressure intensifiers, and vacuum bags. Airtech 1024 is translucent providing visibility under the bag for checking position of materials or progress of processes such as infusions.

BENEFITS

- Cured silicone rubber caul sheets can improve part quality on the bag side of the moulded parts.
- Can be used over complex surface to produce smooth finish.
- Translucent material allows for visibility of process under bag to correct mistakes otherwise unseen with opaque rubber materials.

TECHNICAL DATA

		Test method
Material type	Cured silicone rubber	
Colour	Translucent	
Hardness	40+/-5 Shore A	ASTM D2240
Maximum use temperature	260°C	
Elongation at break	1100 %	ASTM D412 die A
Tensile strength	11.0 MPa	ASTM D412 die A
Compression set at 22 hrs. at 177°C	16 %	ASTM D395, Method B
Shelf life	Unlimited when stored in original packaging at 22°C	

SIZES

Thickness	Width	Length	Packaging Type
1.52 mm	1.22 m +/- 0.64 cm	22.9 m	roll

NOTES

- Shorter rolls available on special order.
- Any silicone rubber has the potential to transfer. Silicone transfer investigation should be done by the user.
- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.

Last updated : 2018-10-25

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Data Sheet

LRB 100

Low temperature latex rubber bagging material

DESCRIPTION

LRB 100 is a low temperature bagging material which can be used at temperature up to 100°C for multiple applications. Its high elongation allow it to conform to complex shapes making it ideal for fast debulk cycles with less time spent tailoring & sealing bags. LRB 100 rubber is semi-transparent, enabling visibility of the item being processed. The product is a low cost product when compared with other rubber materials.

BENEFITS

- Low cost product when compared with other reusable bagging materials.
- High elongation reduces amounts of pleats required and so saving time.
- The rubber is semi-transparent, enabling visible monitoring of the item being processed.

TECHNICAL DATA

		Test method
Material type	Latex rubber	
Colour	Natural	
Maximum use temperature	100°C	
Elongation at break	850 %	ASTM D412 die A
Tensile strength	23.4 MPa	ASTM D412 die A
Shelf life	24 months from date of shipment when stored in original packaging at 22°C	
Storage conditions	Keep temperature below 25°C, preferably below 15°C Avoid moist conditions Protect the rolls from light and circulating air	

SIZES

Thickness	Width	Length	Packaging Type
0.75 mm	2 m +/- 1 cm	20 m	roll
0.75 mm	4 m +/- 2 cm	10 m	roll

NOTES

- Other sizes are available upon request. Minimum order quantity required.
- This product does not exhibit any release characteristics.
- Direct resin contact during curing should be avoided to ensure reusability.
- Tolerance on physical properties +/- 25% due to natural state of material. LRB 100 is a natural latex material and properties have natural variation batch to batch.
- Avoid contact with copper and copper containing alloys which will stain light coloured sheets brown.
- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.

Last updated : 2018-10-25

Catalogue position : Rubber

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Data Sheet

LRB 160

Medium temperature latex rubber bagging material

DESCRIPTION

LRB 160 is a medium temperature reusable bagging material for 125°C cure cycles. Use at higher temperatures up to 160°C is possible, but results in a reduced life span. Elongation characteristics are extremely good enabling the material to conform to complex shapes. This product is considerably cheaper than silicone rubber bagging materials.

BENEFITS

- Low cost product when compared with other reusable bagging materials.
- High elongation reduces amounts of pleats required and so saving time.
- More economical than silicone rubber for mid range temperatures.

TECHNICAL DATA

Material type	Latex rubber
Colour	Black
Maximum use temperature	160°C
Elongation at break	850 %
Tensile strength	21.8 MPa
Shelf life	24 months from date of shipment when stored in original packaging at 22°C
Storage conditions	• Keep temperature below 25°C, preferably below 15°C • Avoid moist conditions • Protect the rolls from light and circulating air

SIZES

Thickness	Width	Length	Packaging Type
0.75 mm	2 m +/- 1 cm	20 m	roll
0.75 mm	4 m +/- 2 cm	10 m	roll

NOTES

- Other sizes are available upon request. Minimum order quantity required.
- This product does not exhibit any release characteristics.
- Direct resin contact during curing should be avoided to ensure reusability.
- Tolerance on physical properties +/- 25% due to natural state of material. LRB 160 is a natural latex material and properties have natural variation batch to batch.
- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.

Last updated : 2018-10-25

Catalogue position : Rubber

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Data Sheet

AIRPAD HTS 5553

Uncured fibreglass reinforced rubber

DESCRIPTION

Airpad HTS 5553 is a fibreglass reinforced silicone rubber that has high reversion resistance and strength. It provides superior performance for manufacture of rubber tooling such as bladders, pressure intensifiers, and pressure caul sheets. The physical properties of the material are a composite of the rubber and glass substrate.

BENEFITS

- Cured silicone rubber caul sheets can improve part quality on the bag side of moulded parts.
- Avoid cure shrinkage problems by using cured silicone bonded with uncured material.
- Can be used over complex surface to produce smooth finish.

TECHNICAL DATA

Properties listed are typical for the fully cured material		Test method
Material type	Uncured fibreglass reinforced rubber	
Colour	Red	
Hardness	70 +/- 5 Shore A	ASTM D2240
Maximum use temperature	232°C	
Tensile strength	3.10 MPa	ASTM D412 die A
Shelf life	6 months when stored below 4°C 30 days when stored at 22°C from date of shipment when stored in original packaging	

SIZES

Thickness	Width	Length	Packaging Type
1.52 mm	96.5 cm	22.9 m	roll

APPLICATION

Bonding and curing procedure for typical caul pad:

- Clean mould or part face with isopropyl alcohol, then apply mould release.
- Cut Airpad HTS 5553 silicone caul pad material to desired size.
- Place on mould surface and gently press out any entrapped air from between the mould and material.
- Place the next layer over the first, alternating the material joints, if any.
- Three layers are recommended for maximum stiffness.
- Place a layer of A4000 release film and a layer of Airweave® N7 breather over surface.
- Vacuum bag and debulk 20 minutes at 0.85 bar at room temperature.
- Cure at 177°C for 3 hours full vacuum minimum 2 bar.
- Alternative out of autoclave cure cycle: full vacuum 0.85 bar 120°C for one hour and 177°C for two hours.
- Allow to cool below 49°C before removal from tool.
- Trim to size if required.

Post cure instructions:

- Place fully cured material in cool oven exposed to air.
- Ramp temperature to 204°C in 30 minutes.
- Dwell at 204°C for 4 hours.
- Cool below 49°C before handling.

NOTES

- Any silicone rubber has the potential to transfer. Silicone transfer investigation should be done by the user.
- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.

Last updated : 2018-10-25

Catalogue position : Rubber

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Data Sheet

AIRTECH 1069

Uncured rubber

DESCRIPTION

Airtech 1069 is a high temperature FKM rubber material that is formulated to be co-cured with Airtech 1024 or Airtech 4124. The material is typically used to create a band of material around the perimeter of a silicone bag that allows the use of standard vacuum bag sealant tapes.

BENEFITS

- Sealant tapes adhere more reliably to FKM rubber than silicone for better vacuum security.
- High temperature stability gives long service life of reusable rubber tooling.
- Easier to use than bondable release films for complex sealing strips.

TECHNICAL DATA

Properties listed are typical for fully cured material		Test method
Material type	FKM rubber	
Colour	Black	
Hardness	75+/-5 Shore A	ASTM D2240
Density	1.81 g/cm^3	ASTM D 792
Maximum use temperature	260°C	
Elongation at break	268 %	ASTM D412
Tensile strength	18.5 MPa	ASTM D412 die A
Compression set at 22 hrs. 177°C	5 %	ASTM D395, Method B
Shelf life	6 months when stored below 4°C 30 days when stored at 22°C from date of shipment when stored in original packaging	

SIZES

Thickness	Width	Length	Packaging Type
0.51 mm	106.7 cm	22.9 m	roll

APPLICATION

Cure Procedure:

- Airtech 1069 is a no-tack material, contact Tygavac technical support for advice.
- Apply a vacuum bag and debulk 20 minutes at 0.85 bar minimum.
- Cure in an autoclave at 177°C with a minimum pressure of 3 bar for 30 minutes plus heat up time required to bring supporting member to temperature. Maintain full vacuum throughout cure cycle 0.85 bar.
- Allow for cooling to 49°C before removal from mould.

Post Cure Instructions:

- Place fully cured material in cool oven with material exposed to air (no vacuum bag).
- Ramp temperature to 204°C in approximately half an hour.
- Post cure at 204°C for 4 hours.
- Allow for cooling at 49°C before handling.

NOTES

- Shorter rolls available on special order.
- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.

Last updated : 2019-03-14

Catalogue position : Rubber

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Website : www.tygavac.co.uk

Data Sheet

AIRTECH 4140

Uncured reusable elastomeric silicone rubber for vacuum bagging

DESCRIPTION

Airtech 4140 is a high grade silicone rubber that offers high reversion resistance and strength. It provides superior performance for manufacture of rubber tooling such as bladders, pressure intensifiers, and vacuum bags. The physical properties of the material are comparable to Airtech 1050 when fully cured and post cured according to the instructions below.

BENEFITS

- Cured silicone rubber caul sheets can improve part quality on the bag side of moulded parts.
- Moulded intensifiers can be used over complex surfaces to produce smooth finish.
- Intensifiers can improve bag side quality and reduce rework.

TECHNICAL DATA

Properties listed are typical for the fully cured material		Test method
Material type	Uncured silicone rubber	
Colour	Red	
Hardness	50+/-5 Shore A	ASTM D2240
Maximum use temperature	232°C	
Elongation at break	700 %	ASTM D412
Tensile strength	9.65 MPa	ASTM D412 die A
Shelf life	6 months when stored below 4°C 30 days when stored below 22°C from date of shipment when stored in original packaging	

SIZES

Thickness	Width	Length	Packaging Type
1.02 mm	91.4 cm	22.9 m	roll
1.52 mm	91.4 cm	22.9 m	roll

APPLICATION

Cure Instructions:

- Apply Release Ease® 234 TFP over uncured Airtech 4140 product.
- Cover with A4000 or Wrightlon® 5200 and Airweave® N7.
- Bag with Ipplon® KM1300 or equivalent.
- Apply full vacuum, ramp to 177°C and hold for 30 minutes, based on lagging thermocouple placed on tool.
- Allow to cool to 49°C before removal from tool.
- For lower temperature cures, simply increase the cure time 30 minutes per 10°C drop in temperature from 177°C.
- Minimum cure temperature is 121°C.

NOTES

- Shorter rolls available on special order.
- Any silicone rubber has the potential to transfer. Silicone transfer investigation should be done by the user.
- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.

Last updated : 2018-10-25

Catalogue position : Rubber

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Data Sheet

AIRTECH 4124

Uncured reusable elastomeric silicone rubber for vacuum bagging

DESCRIPTION

Airtech 4124 is a high grade silicone rubber that offers high reversion resistance and strength. It provides superior performance for manufacture of rubber tooling such as bladders, pressure intensifiers, and vacuum bags. Airtech 4124 is translucent providing visibility under the bag for checking position of materials or progress of processes such as infusions.

BENEFITS

- Cured silicone rubber caul sheets can improve part quality on the bag side of the moulded parts.
- Can be used over complex surface to produce smooth finish.
- Translucent material allows for visibility of process under bag to correct mistakes otherwise unseen with opaque rubber materials.

TECHNICAL DATA

Properties listed are typical for the fully cured material		Test method
Material type	Uncured silicone rubber	
Colour	Translucent	
Hardness	40+/-5 Shore A	ASTM D2240
Maximum use temperature	260°C	
Elongation at break	1300 %	ASTM D412
Tensile strength	12.8 MPa	ASTM D412 die A
Shelf life	6 months when stored below 4°C 30 days when stored below 22°C from date of shipment when stored in original packaging	

SIZES

Thickness	Width	Length	Packaging Type
1.52 mm	91.4 cm	22.9 m	roll

APPLICATION

Cure Instructions

- Apply Release Ease® 234 TFP over uncured Airtech 4124.
- Cover with A4000 or Wrightlon® 5200 and Airweave® N7.
- Bag with Ipplon® KM1300 or equivalent.
- Apply full vacuum, ramp to 177°C and hold for 30 minutes, based on lagging thermocouple placed on tool.
- Allow to cool to 49°C before removal from tool.
- For lower temperature cures, simply increase the cure time 30 minutes per 10°C drop in temperature from 177°C.
- Minimum cure temperature is 121°C.

NOTES

- Any silicone rubber has the potential to transfer. Silicone transfer investigation should be done by the user.
- The maximum use temperature is dependent upon the duration at maximum temperature and is process specific, Tygavac recommends testing prior to use.

Last updated : 2018-10-25

Catalogue position : Rubber

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Data Sheet

SILICONE SEALS

Reusable cured vacuum bag seals

DESCRIPTION

The Airtech Silicone Seals range includes large triangular seals, small triangular seals, cup seals, univac seals, interlocking seals, and cord seals. All are high temperature, extruded silicone rubber that provides a sealing mechanism for reusable silicone vacuum bags. Seals can be permanently bonded to the mould surface or the silicone vacuum bag using RTV silicone adhesive.

BENEFITS

- Silicone seals provide faster sealing action for reduced cycle times.

TECHNICAL DATA

		Test Method
Material type	Cured silicone rubber	
Colour	Red	
Hardness	50 +/-5 Shore A	ASTM D2240
Maximum use temperature	260°C	
Shelf life	Unlimited when stored in original packaging at 22°C	

SIZES

Available in 15 m and 30 m continuous lengths.

APPLICATION

- Bond area should be clean, dry and free from release agents or contaminates.
- Apply Momentive SS4004 or SS4044 silicone primer (or equivalent) per manufacturer's instructions to bond area on the mould (optional).
- Apply RTV silicone adhesive sealant (or equivalent) to the bond area and apply seal.
- Allow adhesive to cure for 24 hours minimum at room temperature.

NOTES

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

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