

# Fasson Durables

## ❖ Labelstock for Electronics and Automotive Labels

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# Fasson Durables

## Core Range – Product Overview

### Product Codes

	S8020	S333	AL170	S8015
FASSON TRANSFER PET WH PT	AFJ000	AFL048	AFJ018	AFL055
FASSON TRANSFER PET WH TOP	AFJ026	AFL063	AFJ034	AFL071
FASSON TRANSFER PET MATT WH	AFJ042	AFL089	ACH792	AFL097
FASSON TRANSFER PET MATT CHROME TOP	AFJ075	AFL105	AFJ083	AFL113
FASSON TRANSFER PET MATT SILVER	AFJ091	AFL121	ACH834	AFL139
FASSON OVERLAMINATING PET 25 (HF80)			AFJ117	
FASSON POLYSUPER MATT WHITE	AFJ125			
FASSON PVC OUTDOOR WHITE			AFJ133	
FASSON PVC OUTDOOR MATT WHITE			AGR226	
FASSON PET VOID CHECK MATT CHROME				AGW529

THE BACKING FOR ALL PRODUCTS (EXCEPT FOR OVERLAMINATING PET 25) IS BG42WH.

### Compliance:

All above mentioned material combinations are approved by UL according to the UL Standard for Safety 969 (File Number MH27538).

### Service:

- MOQ: 300 m<sup>2</sup> (1000 mm width, 300 lm)  
Delivery time: 24 hours ex Schwelm
- Sample rolls: 100 mm x 100 lm, 166 mm x 300 lm  
Delivery time: 24 hours ex Schwelm

Please contact your Fasson representative for further information, application advice, data sheets, sample materials and pricing.

# Fasson Durables

## Core Range - Facestocks

Engineered for superior durability, printability and overall high performance, Fasson Durables facestocks – offered with topcoats or print treatments – accept traditional flexographic or letterpress printing, as well as on-demand thermal transfer printing. The Durables facestocks can be die-cut and stripped at high speeds on standard web-fed presses. And they can be successfully dispensed and applied by hand or with automatic label application equipment.

### Polyesters

Fasson Durables polyesters are ideal solutions for many electronics and automotive applications. They are well-known for their high durability, resistance to harsh environments, dimensional stability, temperature resistance and scratch resistance.

- FASSON Transfer PET wh PT: A 50 µm gloss white polyester film with print treated surface
- FASSON Transfer PET wh TOP: A 50 µm gloss white polyester film with topcoated surface
- FASSON Transfer PET matt wh: A 60 µm white polyester film with a matt topcoat
- FASSON Transfer PET matt chrome TOP: A 50 µm matt finished metallised polyester film, topcoated
- FASSON Transfer PET matt silver: A 60 µm metallised polyester film with a matt topcoat

### Others

- FASSON Overlaminating PET 25: A 25 µm crystal clear, gloss polyester film with print treated surface
- FASSON Polysuper matt white: A 90 µm matt white PE film with an extremely smooth surface for irregular shaped or outgasing substrates
- FASSON PVC outdoor white / FASSON PVC outdoor matt white: A 70 µm white glossy / matt polymeric plastisiced vinyl film for an outdoor durability of 7 years
- FASSON PET void check matt chrome: A 50 µm metallised PET film with a security feature

	FASSON TRANSFER PET WH PT	FASSON TRANSFER PET WH TOP	FASSON TRANSFER PET WH MATT WHITE	FASSON TRANSFER PET MATT CHROME TOP	FASSON TRANSFER PET MATT SILVER	FASSON OVERLAMINATING PET 25	FASSON POLYSUPER MATT WHITE	FASSON PVC OUTDOOR WHITE	FASSON PVC OUTDOOR MATT WHITE	FASSON PET VOID CHECK MATT CHROME
WHITE	●	●	●				●	●	●	
SILVER				●	●					●
TRANSPARENT						●				
SMOOTH	●	●		●		●	●	●		●
MATT			●		●		●		●	
FLEXIBLE							●	●	●	
CALIPER (µm)	50	50	60	50	60	25	90	70	70	50
TT PRINTABLE	●	●	●	●	●	●	●	●	●	●
WRITE ON WITH PENS			●		●					
DIRTY SURROUNDINGS	●	●		●		●	●	●		
24 HOURS 80 °C	●	●	●	●	●	●	●	●	●	●
168 HOURS 70 °C	●	●	●	●	●	●	●	●	●	●
150 °C	●	●	●	●	●	●			●	●
< 1 YEAR OUTDOOR	●	●	●	●	●	●		●		●
< 7 YEAR OUTDOOR								●	●	
SHRINKAGE 24 HRS. 150 °C < 1%	●		●	●	●	●				●
GLOBAL AVAILABILITY		●		●						

# Fasson Durables

## Core Range - Adhesives

Fasson Durables feature state-of-the-art adhesives that meet the demands of a wide variety of applications for the electronics and automotive market. Use the overview below as a general guideline, but remember the selection does not stop there. We have the industry's most comprehensive offering of pressure-sensitive adhesive technologies and can help you determine which products are best for your application.

### S8020

A permanent emulsion acrylic adhesive with excellent adhesion to high surface energy and low surface energy substrates. It features good UV and temperature resistance.

### S333

A permanent emulsion acrylic adhesive with excellent adhesion to high surface energy substrates. It features good UV and temperature resistance. Global availability.

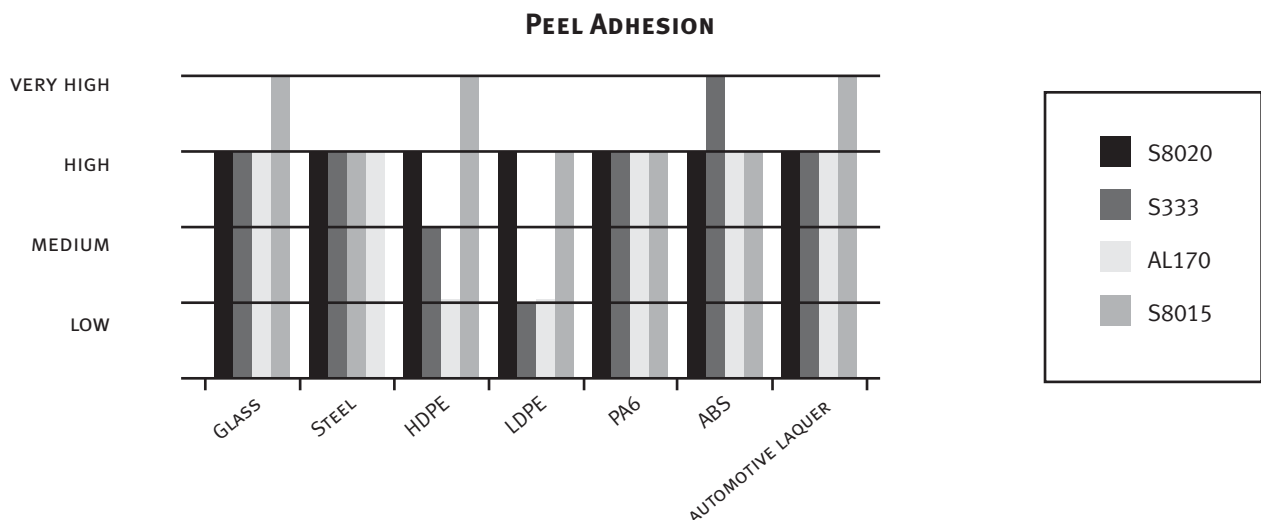
### AL170

A permanent solvent acrylic adhesive with excellent adhesion to high surface energy substrates. It features excellent UV, temperature and chemical resistance as well as extremely high shear.

### S8015

A permanent modified solvent acrylic adhesive with excellent adhesion to high surface energy and low surface energy substrates including powder-coated surfaces. It features good temperature and chemical resistance. Due to the high standard coat weight of 32 g/m<sup>2</sup> it can be used for labelling of rough surface substrates. Global availability.

All adhesives are recognized components of UL for indoor and outdoor use.



## Fasson Durables

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### ...❖ Fasson Specialty Range

Besides the self adhesive constructions in the Fasson Durables Core Range which are offered with a special service Fasson has many more products to offer which fulfill the requirements in the electronics and automotive market.

Some of them are mentioned below. Please contact your Fasson representative to find out more about those materials.

#### **Polyesters**

- FASSON 715 chrome PET: A bright silver, metallised polyester film (36 µm) with a TT printable topcoat
- FASSON 715 Polyester Gold: A bright gold metallised polyester film (36 µm) with a TT printable topcoat
- FASSON 772 Brushed Chrome: A metallised silver polyester film (53 µm) with a "brushed" surface structure and a TT printable topcoat
- FASSON PET 28 silver matt: A matt metallised polyester film (25 µm) with a TT printable topcoat
- FASSON Transfer PET matt trans: A matt transparent polyester film (60 µm) with a specially developed topcoating for thermal transfer printing
- FASSON PET 50 TC: A gloss clear polyester film (50 µm) with a TT printable topcoat

#### **Vinyls**

- FASSON Serilux PVC Clear: A clear gloss monomeric plasticised, calendered vinyl film (80 µm)
- FASSON Serilux PVC trans matt: A matt transparent monomeric plasticised PVC film (90 µm)
- FASSON Serilux PVC White: A gloss white monomeric plasticised, calendered vinyl film (80 µm)
- FASSON Serilux PVC trans matt: A matt white monomeric plasticised PVC film (80 µm)
- FASSON PVC black: A gloss black monomeric plasticised, calendered vinyl film (91 µm)

#### **Others**

- FASSON Solid Foil matt / bright: A matt / bright solid aluminium foil (40 µm)
- FASSON Transfer Tyvek: A modified white, spunbonded polyolefin with exceptional tear resistance (150 µm). The surface of the facestock is modified to offer excellent print results with a wide range of wax/resin thermal transfer ribbons.
- FASSON Data PE 80: A PE film (95 µm) with paperlike coating, white matt, for matrix and thermal transfer printing, UL approved with certain adhesives
- FASSON HGW Premium: A white cast coated, gloss finished, woodfree printing paper (80 g/m<sup>2</sup>), UL approved with S2045
- FASSON Void films: Fasson offers a variety of void films, either standard designs („VOID", Checkerboard) or customized designs and colors
- FASSON PVC matt white UD: A white cast vinyl film (60 µm) with ultra destructable properties
- FASSON Polyimides: Fasson offers a range of high temperature resistant Polyimides (Kapton) with different topcoats, UL approved

**FASSON TRANSFER PET WH PT – S8020 – BG42WH (PRODUCT CODE AFJ000)**

**Facestock**

A gloss white polyester film with print treated surface for enhanced ink adhesion.

Basis weight:	68 g/m <sup>2</sup>	ISO 536
Caliper:	0.050 mm	ISO 534

**Adhesive**

S8020 is a clear permanent adhesive featuring excellent UV resistance and weatherability together with good adhesion performance, even on apolar substrates.

Type:	Emulsion Acrylic	
Coat weight:	20 g/m <sup>2</sup> ± 2 g/m <sup>2</sup>	
Initial Tack:	330 N/m	FTM 9 glass
Peel Adhesion:	540 N/m	FTM 2 steel
Min. application temperature:	+5 °C	
Min. service temperature:	-40 °C	
Max. service temperature:	+150 °C	

**Liner**

BG42 white: siliconized glassine paper, woodfree, super calendered and extremely tough and tear-resistant despite its thinness.

Basis weight:	65 g/m <sup>2</sup>	ISO 536
Caliper:	0,058 mm	ISO 534
Transparency:	48 %	DIN 53147
Tensile Strength:	105 N/15mm	MD

This liner is not recommended for fanfolding.

**Total construction caliper**

0,128 mm +/- 10%

**Typical Values**

Typical values, not for specification use: see Appendix 1.

**Applications and use**

This material was specifically developed for durable applications (nameplates...). The glossy, smooth surface is print treated and can be thermal transfer printed. The best results can be obtained with resin ribbons.

For special requirements we strongly recommend application tests.

**Printing and conversion**

In addition to thermal transfer printing the product can also be printed by all conventional roll label techniques, such as flexo, UV letterpress, silkscreen. Specific testing is required.

For easy diecutting sharp corners should be avoided.

**UL approval**

This product is UL recognized for indoor use, the file number is MH27538. For specific information on approved conditions, see appendix 2.

**Shelf life**

Two years when stored at 22 °C and 50% RH.

**Statement of Practical Use**

As with all pressure sensitive materials, this product should be tested thoroughly under end-use conditions to ensure it meets the requirements of the specific application.

**FASSON TRANSFER PET WH PT – S8020 – BG42WH (AFJ000)**

APPENDIX 1:

**Performance Data**

Note: the following technical data should be considered representative or typical only and should not be used for specification purposes.

**Peel Adhesion:**

FTM1: 180°, 300 mm/min, dwell time: 48 hours

SURFACE	N/25MM
ABS	9,5
ALUMINIUM	9,5
AUTOMOTIVE LAQUERED PANELS	8,0
GLASS	10,5
HDPE	4,5
LDPE	4,5
PA6	9,0
STAINLESS STEEL	18,0

**Chemical Resistance:**

The performance results are based on 4 hours immersions at room temperature unless otherwise noted. Samples were applied to the test panel and conditioned for 24 hours before immersion and evaluated immediately upon removal. Peel adhesion was measured at 180° peel.

CHEMICAL	TEST SUBSTRATE	N/25MM	VISUAL APPEARANCE	EDGE PENETRATION(MM)
BRAKE FLUID <sup>1</sup>	GLASS	9,8	NO CHANGE	0
DIESEL <sup>2</sup>	GLASS	8,6	NO CHANGE	0
ENGINE OIL <sup>3</sup>	GLASS	9,5	NO CHANGE	0
GASOLINE <sup>4</sup>	GLASS	6,8	NO CHANGE	3
HEPTANE	GLASS	7,2	NO CHANGE	3
WATER, DESTILLED	ALUMINIUM	8,1	NO CHANGE	3

1 DOT SYNTHETIC (ONE WAY)

2 TOTAL

3 TOTAL QUARTZ 700, 10 W 40

4 TOTAL EURO 95

**FASSON TRANSFER PET WH PT – S8020 – BG42WH (AFJ000)**

THERMAL TRANSFER PRINTING:  
**Printability – Physical Resistance**

**Flat head printers:**

RIBBON	SETTINGS		PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
	SPEED	ENERGY				
ARMOR AXR7+	3	20	++	B	++	++
DAI NIPPON R510	2	20	++	A	++	++
RICOH B110Cx	3	10	+	A	++	++
SONY TR4070	3	10	+	A	0	+
SONY TR5070	4	15	+	A	++	++

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER ZEBRA STRIPE S-5

**Near edge printers:**

RIBBON	SETTINGS	PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
Armor AXR 600	4 "/s	++	A	++	++
Ricoh B120 Ec	4 "/s	++	B	+	+
Sony TR4570	4 "/s	++	A	++	++

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER AVERY TTX 450 – NEAR EDGE.

++ : EXCELLENT + : GOOD 0 : ACCEPTABLE - : POOR

ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE) GRADE: INFORMATION ABOUT BARCODE QUALITY

A : EXCELLENT B : GOOD C : ACCEPTABLE D : READABLE WITH DIFFICULTY

**Chemical Resistance:**

The printed samples were wetted on the surface with a soft clean cotton cloth soaked in the test solution by wiping 10 times back and forth with light pressure. After 5 seconds they were dried with a clean dry soft cloth. After 15 minutes the evaluation took place.

	AXR7+	R510	B110Cx	TR4070	TR5070	AXR600	B120Ec	TR4570
Anti-Freeze <sup>1</sup>	+	+	+	+	+	+	+	+
Brake fluid <sup>2</sup>	+	+	+	+	+	+	-	+
Cleaner solvent <sup>3</sup>	+	+	+	+	+	+	+	+
Engine oil <sup>4</sup>	+	+	+	+	+	+	+	+
Gasoline <sup>5</sup>	+	+	+	+	+	+	+	-
Isopropanol	+	+	+	+	+	+	+	+
Preservative <sup>6</sup>	+	+	+	+	+	+	+	-
Spirit	+	+	+	+	+	+	+	+

+: GOOD (NO CHANGE) 0: ACCEPTABLE (MINOR CHANGE, STILL READABLE) -: POOR

1 SPEEDFROST "SPEEDFROIL" 1:1 IN WATER

2 "ATE" SL DOT 4

3 "CARAMBA" KALTREINIGER

4 BP 15 W-40

5 SUPER UNLEADED

6 "NIGRIN" HARTWACHSPOLITUR

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**FASSON TRANSFER PET WH PT – S8020 – BG42WH (AFJ000)**

APPENDIX 2:

**Compliance Data****UL – Underwriters Laboratories**

File Number: MH27538

This material is UL recognized for exposure indoors to high humidity or occasional exposure to water.

<b>SUBSTRATE</b>	<b>MINIMUM TEMPERATURE (°C)</b>	<b>MAXIMUM TEMPERATURE (°C)</b>
STAINLESS STEEL	-40	+150
ALUMINUM	-40	+150
GALVANIZED STEEL	-40	+150
ALKYD PAINT	-40	+150
NYLON	-40	+100
POLYCARBONATE	-40	+100
ABS	-40	+80

THE UL CERTIFICATION INCLUDES THE PRINTING WITH ONE OR MORE OF THE FOLLOWING THERMAL TRANSFER RIBBONS:  
ARMOR "AXR7+", "AXR600", DAINIPPON "R510", RICOH "B110C", "B110CX" AND SONY "TR5075"

**FASSON TRANSFER PET WHITE TOP – S8015 – BG42WH (PRODUCT CODE AFL071))**

**Facestock**

A gloss white polyester film. The smooth surface is covered with a topcoat for excellent ink anchorage.

Basis weight:	69 g/m <sup>2</sup>	ISO 536
Caliper:	0.050 mm	ISO 534

**Adhesive**

The S8015 is a high strength permanent acrylic adhesive featuring high initial tack, adhesion and shear. It offers strong permanent bonding to a wide variety of substrates, including high surface energy, low surface energy and powder coated substrates.

Type:	Solvent Acrylic	
Coat weight:	32 g/m <sup>2</sup> ± 2 g/m <sup>2</sup>	
Initial Tack:	1000 N/m	FTM 9 glass
Peel Adhesion:	820 N/m	FTM 2 steel
Min. Application temperature:	+7 °C	
Min. service temperature:	-40 °C	
Max. service temperature:	+150 °C	

**Liner**

BG42 white: siliconized glassine paper, wood-free, super calendered and extremely tough and tear-resistant despite its thinness.

Basis weight:	65 g/m <sup>2</sup>	ISO 536
Caliper:	0,058 mm	ISO 534
Transparency:	48 %	DIN 53147
Tensile Strength:	105 N/15mm	MD

This liner is not recommended for fanfolding.

**Total construction caliper**

0,140 mm +/- 10%

**Typical Values**

Typical values, not for specification use: see Appendix 1.

**Applications and use**

Transfer PET white TOP was specially developed for industrial labels and thermal transfer applications. Thanks to the special surface coating, excellent results can be achieved with thermal transfer printers equipped with conventional or near-edge print heads using resin ribbons. The main area of application for Transfer PET white TOP is the labelling of industrial products. Nameplates and logistics labels are typical examples. This product is distinguished by its high chemical resistance. The high tack adhesive S8015 is used for difficult substrates, including low surface energy materials. For special requirements we strongly recommend application tests.

**Printing and conversion**

In addition to thermal transfer printing the product can also be printed by all conventional roll label techniques, such as flexo, UV letterpress, silkscreen. Specific testing is required. For easy diecutting sharp corners should be avoided.

**UL approval**

This product is UL recognized for indoor and outdoor use, the file number is MH27538. For specific information on approved conditions, see appendix 2.

**Shelf life**

Two years when stored at 22 °C and 50% RH.

**Statement of Practical Use**

As with all pressure sensitive materials, this product should be tested thoroughly under end-use conditions to ensure it meets the requirements of the specific application.

**FASSON TRANSFER PET WHITE TOP – S8015 – BG42WH (AFL071)**

APPENDIX 1:

**Performance Data**

Note: the following technical data should be considered representative or typical only and should not be used for specification purposes.

**Peel Adhesion:**

FTM1: 180°, 300 mm/min, dwell time: 48 hours

SURFACE	N/25MM
ABS	18,5
ALUMINIUM	17,0
AUTOMOTIVE LAQUERED PANELS	18,0
GLASS	20,5
HDPE	11,3
LDPE	9,0
PA6	19,0
STAINLESS STEEL	19,0

**Chemical Resistance:**

The performance results are based on 4 hours immersions at room temperature unless otherwise noted. Samples were applied to the test panel and conditioned for 24 hours before immersion and evaluated immediately upon removal. Peel adhesion was measured according to FTM.

CHEMICAL	TEST SUBSTRATE	N/25MM	VISUAL APPEARANCE	EDGE PENETRATION (MM)
BRAKE FLUID <sup>1</sup>	GLASS	20,0	NO CHANGE	0
DIESEL <sup>2</sup>	GLASS	19,2	NO CHANGE	0
ENGINE OIL <sup>3</sup>	GLASS	19,7	NO CHANGE	0
GASOLINE <sup>4</sup>	GLASS	10,2	NO CHANGE	6
HEPTANE	GLASS	12,5	NO CHANGE	4
WATER, DESTILLED	ALUMINIUM	15,1	NO CHANGE	0

1 DOT SYNTHETIC (ONE WAY)  
 2 TOTAL  
 3 TOTAL QUARTZ 700, 10 W 40  
 4 TOTAL EURO 95

**FASSON TRANSFER PET WHITE TOP – S8015 – BG42WH (AFL071)**

THERMAL TRANSFER PRINTING:

**Printability – Physical Resistance**

**Flat head printers:**

RIBBON	SETTINGS		PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
	SPEED	ENERGY				
ARMOR AXR7+	3	20	++	A	++	++
DAI NIPPON R510	3	20	++	A	++	++
RICOH B110Cx	4	20	+	A	++	++
SONY TR4070	3	10	+	A	++	++
SONY TR5070	4	20	++	A	++	++

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER ZEBRA STRIPE S-500.

**Near edge printers:**

RIBBON	SETTINGS	PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
ARMOR AXR 600	4 "/s	++	A	++	++
RICOH B120 Ec	4 "/s	++	B	O	O
SONY TR4570	4 "/s	++	A	++	++

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER AVERY TTX 450 – NEAR EDGE.

++: EXCELLENT +: GOOD O: ACCEPTABLE -: POOR

ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE) GRADE: INFORMATION ABOUT BARCODE QUALITY

A: EXCELLENT B: GOOD C: ACCEPTABLE D: READABLE WITH DIFFICULTY

**Chemical Resistance:**

The printed samples were wetted on the surface with a soft clean cotton cloth soaked in the test solution by wiping 10 times back and forth with light pressure. After 5 seconds they were dried with a clean dry soft cloth. After 15 minutes the evaluation took place.

	AXR7+	R510	B110Cx	TR4070	TR4570	TR5070	AXR600	B120Ec
ANTI-FREEZE <sup>1</sup>	+	+	+	+	+	+	+	+
BRAKE FLUID <sup>2</sup>	+	+	+	+	+	+	+	-
CLEANER SOLVENT <sup>3</sup>	+	+	+	+	+	+	+	+
ENGINE OIL <sup>4</sup>	+	+	+	+	+	+	+	+
GASOLINE <sup>5</sup>	+	+	+	+	-	+	+	+
ISOPROPANOL	+	+	+	+	+	+	+	+
PRESERVATIVE <sup>6</sup>	+	+	+	+	-	+	+	+
SPIRIT	+	+	+	+	+	-	+	+

+: GOOD (NO CHANGE) O: ACCEPTABLE (MINOR CHANGE, STILL READABLE) -: POOR

1 SPEEDFROST "SPEEDFROIL" 1:1 IN WATER

2 "ATE" SL DOT 4

3 "CARAMBA" KALTREINIGER

4 BP 15 W-40

5 SUPER UNLEADED

6 "NIGRIN" HARTWACHSPOLITUR

**FASSON TRANSFER PET WHITE TOP – S8015 – BG42WH (AFL071)**

APPENDIX 2:  
**Compliance Data**

**UL – Underwriters Laboratories**

File Number: MH27538

This material is UL recognized for exposure indoors and outdoors to high humidity or occasional exposure to water.

SUBSTRATE	MINIMUM TEMPERATURE (°C)	MAXIMUM TEMPERATURE (°C)	I	I/O
POLYVINYL CHLORIDE	-	+40	X	
POLYETHYLENE	-	+40	X	
POLYPROPYLENE	-	+40	X	
STAINLESS STEEL	-40	+150		
GALVANIZED STEEL	-40	+150		
POLYURETHANE POWDER PAINT	-40	+150		X
EPOXY PAINT	-40	+150		X
PORCELAIN	-40	+150		X
ALKYD PAINT	-40	+150		X
ALUMINUM	-23	+150		X
UNSATURATED (THERMOSET)				
POLYESTER	-23	+150		X
EPOXY POWDER PAINT	-23	+150		X
POLYESTER POWDER PAINT	-23	+150		X
POLYESTER PAINT	-23	+150		X
ACRYLIC POWDER PAINT	-23	+150		X
ACRYLIC PAINT	-23	+150		X
PHENOLIC	-23	+100		X
POLYCARBONATE	-23	+100		X
NYLON	-23	+80		X
POLYPHENYLENE OXIDE	-23	+80		X
ABS	-23	+60		X
POLYSTYRENE	-23	+40		X

I: INDOORS, I/O: INDOORS AND OUTDOORS

THE UL CERTIFICATION INCLUDES THE PRINTING WITH ONE OR MORE OF THE FOLLOWING THERMAL TRANSFER RIBBONS:

ASTROMED "RF", "RY", "RAF BLUE", "R-5", ARMOR "AXR8", "AXR600", "AXR7+",  
 CODING PRODUCTS "5940", "5640 BLUE", "5440 RED", DAINIPPON "R-300", "R-510", "R-510 GREEN", "R-510 RED" (INDOOR USE ONLY), "R-510 BLUE", DASCO "DR-74", "DR-84", IIMAK "SH-36", "SP-330", "PRIMEMARK", INTERMEC "053258-2", "054048-4", ITW "R-90", "M-95", JAPAN PULP AND PAPER "RESIN 1", "RESIN 2 BLUE", "RESIN 2 RED" (INDOOR USE ONLY), "RESIN 2 GREEN", KURZ "K-500", MID-CITY COLUMBIA "CGL-80HE", "MCC-23HE", NCR "PROMARK 3", "PACESETTER", "ULTRA V", "MATRIX RESIN", PEAK "ULTRA PREMIUM", "ULTRA EXTREME", RICOH "B110C", "B110CR", RSI ID TECHNOLOGIES "PRESSIZA H", "PRESSIZA R", "PRESSIZA S", "PRESSIZA K", "PRESSIZA X", SATO "PREMIER 1", SONY "4070", "4072", "4080", "4075", "4085", "5070", "4571", "SIGNATURE SERIES™ RESIN", "TRX-75", UNION CHEMICAR "US-300", ZEBRA "5095", "5175", "5100" AND "5555"

**FASSON TRANSFER PET MATT WHITE – S333 – BG42WH (PRODUCT CODE AFL089)**

**Facestock**

A matt white polyester film. The surface is covered with a matt topcoat designed for thermal transfer imprinting.

Basis weight:	79 g/m <sup>2</sup>	ISO 536
Caliper:	0.060 mm	ISO 534

**Adhesive**

S333 is an excellent, general purpose industrial grade clear adhesive. Features high initial tack, ultimate adhesion and low adhesive ooze.

Type:	Emulsion Acrylic	
Coat weight:	26 g/m <sup>2</sup> ± 2 g/m <sup>2</sup>	
Initial Tack:	300 N/m	FTM 9 glass
Peel Adhesion:	500 N/m	FTM 2 steel
Min. application temperature:	+5 °C	
Min. Service temperature:	-40 °C	
Min. Service temperature:	+150 °C	

**Liner**

BG42 white: siliconized glassine paper, wood-free, super calendered and extremely tough and tear-resistant despite its thinness.

Basis weight:	65 g/m <sup>2</sup>	ISO 536
Caliper:	0,058 mm	ISO 534
Transparency:	48 %	DIN 53147
Tensile Strength:	105 N/15mm	MD

This liner is not recommended for fanfolding.

**Total construction caliper**

0,144 mm +/- 10%

**Typical Values**

Typical values, not for specification use: see Appendix 1.

**Applications and use**

Transfer PET matt was specially developed for industrial labels and thermal transfer applications. Thanks to the special surface coating, excellent results can be achieved with thermal transfer printers equipped with conventional or near-edge print heads and using either wax/resin or pure resin ribbons.

The main area of application for Transfer PET matt is the labelling of industrial products. Nameplates and logistics labels are typical examples. This product is distinguished by its high chemical resistance.

For special requirements we strongly recommend application tests.

**Printing and conversion**

In addition to thermal transfer printing the product can also be printed by all conventional roll label techniques, such as flexo, UV letterpress, silkscreen. Specific testing is required.

For easy diecutting sharp corners should be avoided.

**UL approval**

This product is UL recognized for indoor use, the file number is MH27538. For specific information on approved conditions, see appendix 2.

**Shelf life**

Two years when stored at 22 °C and 50% RH.

**Statement of Practical Use**

As with all pressure sensitive materials, this product should be tested thoroughly under end-use conditions to ensure it meets the requirements of the specific application.

**FASSON TRANSFER PET MATT WHITE – S333 – BG42WH (AFL089)**

APPENDIX 1:

**Performance Data**

Note: the following technical data should be considered representative or typical only and should not be used for specification purposes.

**Peel Adhesion:**

FTM1: 180°, 300 mm/min, dwell time: 48 hours

SURFACE	N/25MM
ABS	15,0
ALUMINIUM	11,5
AUTOMOTIVE LAQUERED PANELS	13,0
GLASS	12,5
HDPE	5,0
LDPE	3,0
PA6	10,5
STAINLESS STEEL	10,0

**Chemical Resistance:**

The performance results are based on 4 hours immersions at room temperature unless otherwise noted. Samples were applied to the test panel and conditioned for 24 hours before immersion and evaluated immediately upon removal. Peel adhesion was measured at 180° peel.

CHEMICAL	TEST SUBSTRATE	N/25MM	VISUAL APPEARANCE	EDGE PENETRATION(MM)
BRAKE FLUID <sup>1</sup>	GLASS	13,6	NO CHANGE	0
DIESEL <sup>2</sup>	GLASS	11,3	NO CHANGE	0
ENGINE OIL <sup>3</sup>	GLASS	13,0	NO CHANGE	0
GASOLINE <sup>4</sup>	GLASS	7,2	NO CHANGE	4
HEPTANE	GLASS	8,9	NO CHANGE	2
WATER, DESTILLED	ALUMINIUM	13,6	NO CHANGE	2
WATER WITH 2% CLEANING SOL.	ALUMINIUM	14,1	NO CHANGE	2

1 DOT SYNTHETIC (ONE WAY)

2 TOTAL

3 TOTAL QUARTZ 700, 10 W 40

4 TOTAL EURO 95

**FASSON TRANSFER PET MATT WHITE – S333 – BG42WH (AFL089)**

THERMAL TRANSFER PRINTING:  
**Printability – Physical Resistance**

**Flat head printers:**

RIBBON	SETTINGS		PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
	SPEED	ENERGY				
ARMOR AXR7+	4	15	+	A	++	++
ARMOR APR5	5	15	++	A	++	++
RICOH B110A	5	15	++	A	++	++
SONY TR4070	3	15	++	A	++	++
SONY TR4065	4	15	++	B	++	++

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER ZEBRA STRIPE S-500

**Near edge printers:**

RIBBON	SETTINGS	PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
ARMOR APR 600	6 "/s	++	A	++	O
RICOH B120 Ex2	6 "/s	++	B	++	++
SONY TR4500	6 "/s	++	A	++	O

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER AVERY TTX 450 – NEAR EDGE.

++ : EXCELLENT + : GOOD O : ACCEPTABLE - : POOR

ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE) GRADE: INFORMATION ABOUT BARCODE QUALITY

A : EXCELLENT B : GOOD C : ACCEPTABLE D : READABLE WITH DIFFICULTY

**Chemical Resistance:**

The printed samples were wetted on the surface with a soft clean cotton cloth soaked in the test solution by wiping 10 times back and forth with light pressure. After 5 seconds they were dried with a clean dry soft cloth. After 15 minutes the evaluation took place.

	AXR7+	APR5	B110A	TR4070	TR4065	APR600	B120EX2	TR4500
ANTI-FREEZE <sup>1</sup>	+	+	+	+	+	+	+	+
BRAKE FLUID <sup>2</sup>	+	+	+	+	+	+	+	+
CLEANER SOLVENT <sup>3</sup>	+	+	+	+	+	-	-	-
ENGINE OIL <sup>4</sup>	+	+	+	+	+	+	+	+
GASOLINE <sup>5</sup>	+	+	+	+	+	-	-	-
ISOPROPANOL	+	+	+	+	+	-	-	+
PRESERVATIVE <sup>6</sup>	+	+	+	+	+	-	-	-
SPIRIT	+	+	+	+	+	+	+	+

+ : GOOD (NO CHANGE) O : ACCEPTABLE (MINOR CHANGE, STILL READABLE) - : POOR

1 SPEEDFROST "SPEEDFROIL" 1:1 IN WATER

2 "ATE" SL DOT 4

3 "CARAMBA" KALTREINIGER

4 BP 15 W-40

5 SUPER UNLEADED

6 "NIGRIN" HARTWACHSPOLITUR

**FASSON TRANSFER PET MATT WHITE – S333 – BG42WH (AFL089)**

APPENDIX 2:  
**Compliance Data**

**UL – Underwriters Laboratories**

File Number: MH27538

This material is UL recognized for exposure indoors and on some substrates outdoors to high humidity or occasional exposure to water.

SUBSTRATE	MINIMUM TEMPERATURE (°C)	MAXIMUM TEMPERATURE (°C)	I	I/O
UNSATURATED (THERMOSET)				
POLYESTER	-40	+100	X	
PHENOLIC	-40	+100	X	
POLYPHENYLENE OXIDE	-40	+80	X	
ALKYD PAINTED PLASTIC	-40	+60	X	
POLYETHYLENE	-	+60	X	
ALUMINUM	-40	+150		X
STAINLESS STEEL	-40	+150		X
GALVANIZED STEEL	-40	+150		X
EPOXY PAINT	-40	+150		X
PORCELAIN	-40	+150		X
ALKYD PAINT	-40	+150		X
ACRYLIC PAINT	-40	+150		X
POLYESTER PAINT	-40	+150		X
POLYCARBONATE	-40	+100		X
NYLON	-40	+100		X
MELAMINE PLASTIC	-40	+100		X
ABS	-40	+80		X
POLYSTYRENE	-40	+80		X

I: INDOORS, I/O: INDOORS AND OUTDOORS

THE UL CERTIFICATION INCLUDES THE PRINTING WITH ONE OR MORE OF THE FOLLOWING THERMAL TRANSFER RIBBONS:  
ARMOR "APR5", "AXR7+", ASTRO-MED "RV2", "R5", GRAFICOR "GC14", "GC12", KURZ "K501", RICOH "B-110A", "B-110CX",  
PELIKAN "T016" AND "T001"

**FASSON TRANSFER PET MATT CHROME TOP – AL170 – BG42WH (PRODUCT CODE AFJ083)**

**Facestock**

A matt finished metallic polyester film. The smooth surface is covered with a topcoat for excellent ink anchorage.

Basis weight: 69 g/m<sup>2</sup> ISO 536  
 Caliper: 0.050 mm ISO 534

**Adhesive**

AL170 is a strong, permanent, solvent-based acrylate adhesive which is distinguished by very high ageing stability. It features very high resistance against chemicals and heat.

Type: Solvent Based Acrylate  
 Coat weight: 24 g/m<sup>2</sup> ± 2 g/m<sup>2</sup>  
 Initial Tack: 270 N/m FTM 9 glass  
 Peel Adhesion: 620 N/m FTM 2 steel  
 Min. application temperature: 0 °C  
 Min. service temperature: -80 °C  
 Max. service temperature: +150 °C

**Liner**

BG42 white: siliconized glassine paper, wood-free, super calendered and extremely tough and tear-resistant despite its thinness.

Basis weight: 65 g/m<sup>2</sup> ISO 536  
 Caliper: 0,058 mm ISO 534  
 Transparency: 48 % DIN 53147  
 Tensile Strength: 105 N/15mm MD

This liner is not recommended for fanfolding.

**Total construction caliper**

0,132 mm +/- 10%

**Typical Values**

Typical values, not for specification use: see Appendix 1.

**Applications and use**

Transfer PET matt chrome TOP was specially developed for industrial labels and thermal transfer applications. Thanks to the special surface coating, excellent results can be achieved with thermal transfer printers equipped with conventional or near-edge print heads using resin ribbons. The main area of application for Transfer PET matt chrome TOP is the labelling of industrial products. Nameplates and logistics labels are typical examples. This product is distinguished by its high chemical resistance. For special requirements we strongly recommend application tests.

**Printing and conversion**

In addition to thermal transfer printing the product can also be printed by all conventional roll label techniques, such as flexo, UV letterpress, silkscreen. Specific testing is required. For easy diecutting sharp corners should be avoided.

**UL approval**

This product is UL recognized for indoor and outdoor use, the file number is MH27538. For specific information on approved conditions, see appendix 2.

**Shelf life**

Two years when stored at 22 °C and 50% RH.

**Statement of Practical Use**

As with all pressure sensitive materials, this product should be tested thoroughly under end-use conditions to ensure it meets the requirements of the specific application.

**FASSON TRANSFER PET MATT CHROME TOP – AL170 – BG42WH (AFJ083)**

APPENDIX 1:

**Performance Data**

Note: the following technical data should be considered representative or typical only and should not be used for specification purposes.

**Peel Adhesion:**

FTM1: 180°, 300 mm/min, dwell time: 48 hours

SURFACE	N/25MM
ABS	15,0
AUTOMOTIVE LAQUERED PANELS	15,5
GLASS	16,5
HDPE	3,5
LDPE	0,8
PA6	15,5
STAINLESS STEEL	19,0

**Chemical Resistance:**

The performance results are based on 4 hours immersions at room temperature unless otherwise noted. Samples were applied to the test panel and conditioned for 24 hours before immersion and evaluated immediately upon removal. Peel adhesion was measured according to FTM1.

CHEMICAL	TEST SUBSTRATE	N/25MM	VISUAL APPEARANCE	EDGE PENETRATION(MM)
BRAKE FLUID <sup>1</sup>	GLASS	18,8	NO CHANGE	0
DIESEL <sup>2</sup>	GLASS	14,8	NO CHANGE	0
ENGINE OIL <sup>3</sup>	GLASS	16,4	NO CHANGE	0
GASOLINE <sup>4</sup>	GLASS	11,3	NO CHANGE	4
HEPTANE	GLASS	13,0	NO CHANGE	3

1 DOT SYNTHETIC (ONE WAY)

2 TOTAL

3 TOTAL QUARTZ 700, 10 W 40

4 TOTAL EURO 95

**FASSON TRANSFER PET MATT CHROME TOP – AL170 – BG42WH (AFJ083)**

THERMAL TRANSFER PRINTING:

**Printability – Physical Resistance**

**Flat head printers:**

RIBBON	SETTINGS		PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
	SPEED	ENERGY				
ARMOR AXR7+	3	20	++	D <sup>1</sup>	+	++
DAI NIPPON R510	3	20	++	D <sup>1</sup>	++	++
RICOH B110Cx	2	10	+	D <sup>1</sup>	++	++
SONY TR4070	3	10	++	D <sup>1</sup>	++	++
SONY TR5070	3	10	+	D <sup>1</sup>	++	++

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER ZEBRA STRIPE S-500.

**Near edge printers:**

RIBBON	SETTINGS	PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
ARMOR AXR 600	4 "/s	++	D <sup>1</sup>	++	++
RICOH B120 Ec	4 "/s	++	D <sup>1</sup>	0	0
SONY TR4570	4 "/s	++	D <sup>1</sup>	++	++

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER AVERY TTX 450 – NEAR EDGE.

ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE) GRADE: INFORMATION ABOUT BARCODE QUALITY

A: EXCELLENT B: GOOD C: ACCEPTABLE D: READABLE WITH DIFFICULTY

1 THE PRINT QUALITY IS GOOD, BUT DUE TO THE REFLECTION OF METALLISED FILMS THE CONTRAST IS LOW

++: EXCELLENT +: GOOD 0: ACCEPTABLE -: POOR

**Chemical Resistance:**

The printed samples were wetted on the surface with a soft clean cotton cloth soaked in the test solution by wiping 10 times back and forth with light pressure. After 5 seconds they were dried with a clean dry soft cloth. After 15 minutes the evaluation took place.

	AXR7+	R510	B110Cx	TR4070	TR4570	TR5070	AXR600	B120Ec
ANTI-FREEZE <sup>1</sup>	+	+	+	+	+	+	+	+
BRAKE FLUID <sup>2</sup>	+	+	+	+	+	+	-	+
CLEANER SOLVENT <sup>3</sup>	+	+	+	+	+	+	+	+
ENGINE OIL <sup>4</sup>	+	+	+	+	+	+	+	+
GASOLINE <sup>5</sup>	+	+	+	+	-	+	+	+
ISOPROPANOL	+	+	+	+	+	+	+	+
PRESERVATIVE <sup>6</sup>	+	+	+	+	-	+	+	+
SPIRIT	+	+	+	+	+	+	+	+

+: GOOD (NO CHANGE) 0: ACCEPTABLE (MINOR CHANGE, STILL READABLE) -: POOR

1 SPEEDFROST "SPEEDFROIL" 1:1 IN WATER

2 "ATE" SL DOT 4

3 "CARAMBA" KALTREINIGER

4 BP 15 W-40

5 SUPER UNLEADED

6 "NIGRIN" HARTWACHSPOLITUR

**FASSON TRANSFER PET MATT CHROME TOP – AL170 – BG42WH (AFJ083)**

APPENDIX 2:  
**Compliance Data**

**UL – Underwriters Laboratories**

File Number: MH27538

This material is UL recognized for exposure indoors and outdoors to high humidity or occasional exposure to water.

SUBSTRATE	MINIMUM TEMPERATURE (°C)	MAXIMUM TEMPERATURE (°C)
ACRYLIC PAINT	-40	+150
ALKYD PAINT	-40	+150
ALUMINUM	-40	+150
GALVANIZED STEEL	-40	+150
POLYESTER PAINT	-40	+150
STAINLESS STEEL	-40	+150
POLYPROPYLENE	-40	+80
POLYSTYRENE	-40	+80
ABS	-40	+60

THE UL CERTIFICATION INCLUDES THE PRINTING WITH ONE OR MORE OF THE FOLLOWING THERMAL TRANSFER RIBBONS:  
 ASTROMED "RF", "RY", "RAF BLUE", "R-5", ARMOR "AXR8", "AXR600", "AXR7+",  
 CODING PRODUCTS "5940", "5640 BLUE", "5440 RED", DAINIPPON "R-300", "R-510", "R-510 GREEN", "R-510 RED" (INDOOR USE ONLY), "R-510 BLUE", DASCO "DR-74", "DR-84", IIMAK "SH-36", "SP-330", "PRIMEMARK", INTERMEC "053258-2", "054048-4", ITW "R-90", "M-95", JAPAN PULP AND PAPER "RESIN 1", "RESIN 2 BLUE", "RESIN 2 RED" (INDOOR USE ONLY), "RESIN 2 GREEN", KURZ "K-500", MID-CITY COLUMBIA "CGL-80HE", "MCC-23HE", NCR "PROMARK 3", "PACESETTER", "ULTRA V", "MATRIX RESIN", PEAK "ULTRA PREMIUM", "ULTRA EXTREME", RICOH "B110C", "B110CR", RSI ID TECHNOLOGIES "PRESSIZA H", "PRESSIZA R", "PRESSIZA S", "PRESSIZA K", "PRESSIZA X", SATO "PREMIER 1", SONY "4070", "4072", "4080", "4075", "4085", "5070", "4571", "SIGNATURE SERIES™ RESIN", "TRX-75", UNION CHEMICAL "US-300", ZEBRA "5095", "5175", "5100" AND "5555"

**FASSON TRANSFER PET MATT SILVER – S8015 – BG42WH (PRODUCT CODE AFL139)**

**Facestock**

A matt silver polyester film with backside metallization. The surface is covered with a matt topcoat designed for computer imprinting.

Basis weight: 80 g/m<sup>2</sup> ISO 536  
 Caliper: 0.060 mm ISO 534

**Adhesive**

The S8015 is a high strength permanent acrylic adhesive featuring high initial tack, adhesion and shear. It offers strong permanent bonding to a wide variety of substrates, including high surface energy, low surface energy and powder coated substrates.

Type: Solvent Acrylic  
 Coat weight: 32 g/m<sup>2</sup> ± 2 g/m<sup>2</sup>  
 Initial Tack: 1000 N/m FTM 9 glass  
 Peel Adhesion: 820 N/m FTM 2 steel  
 Min. Application temperature: +7°C  
 Min. service temperature: -40 °C  
 Max. service temperature: +150 °C

**Liner**

BG42 white: siliconized glassine paper, wood-free, super calendered and extremely tough and tear-resistant despite its thinness.

Basis weight: 65 g/m<sup>2</sup> ISO 536  
 Caliper: 0,058 mm ISO 534  
 Transparency: 48 % DIN 53147  
 Tensile Strength: 105 N/15mm MD

This liner is not recommended for fanfolding.

**Total construction caliper**

0,150 mm +/- 10%

**Typical Values**

Typical values, not for specification use: see Appendix 1.

**Applications and use**

Transfer PET matt was specially developed for industrial labels and thermal transfer applications. Thanks to the special surface coating, excellent results can be achieved with thermal transfer printers equipped with conventional or near-edge print heads and using either wax/resin or pure resin ribbons.

The main area of application for Transfer PET matt is the labelling of industrial products. Nameplates and logistics labels are typical examples. This product is distinguished by its high chemical resistance.

The high tack adhesive S8015 is used for difficult substrates, including low surface energy materials. For special requirements we strongly recommend application tests.

**Printing and conversion**

In addition to thermal transfer printing the product can also be printed by all conventional roll label techniques, such as flexo, UV letterpress, silkscreen. Specific testing is required.

For easy diecutting sharp corners should be avoided.

**UL approval**

This product is UL recognized for indoor and outdoor use, the file number is MH27538. For specific information on approved conditions, see appendix 2.

**Shelf life**

Two years when stored at 22 °C and 50% RH.

**Statement of Practical Use**

As with all pressure sensitive materials, this product should be tested thoroughly under end-use conditions to ensure it meets the requirements of the specific application.

**FASSON TRANSFER PET MATT SILVER – S8015 – BG42WH (AFL139)**

APPENDIX 1:

**Performance Data**

Note: the following technical data should be considered representative or typical only and should not be used for specification purposes.

**Peel Adhesion:**

FTM1: 180°, 300 mm/min, dwell time: 48 hours

SURFACE	N/25MM
ABS	18,5
ALUMINIUM	17,0
AUTOMOTIVE LAQUERED PANELS	18,0
GLASS	20,5
HDPE	11,3
LDPE	9,0
PA6	19,0
STAINLESS STEEL	19,0

**Chemical Resistance:**

The performance results are based on 4 hours immersions at room temperature unless otherwise noted. Samples were applied to the test panel and conditioned for 24 hours before immersion and evaluated immediately upon removal. Peel adhesion was measured according to FTM1.

CHEMICAL	TEST SUBSTRATE	N/25MM	VISUAL APPEARANCE	EDGE PENETRATION(MM)
BRAKE FLUID <sup>1</sup>	GLASS	20,0	NO CHANGE	0
DIESEL <sup>2</sup>	GLASS	19,2	NO CHANGE	0
ENGINE OIL <sup>3</sup>	GLASS	19,7	NO CHANGE	0
GASOLINE <sup>4</sup>	GLASS	10,2	NO CHANGE	6
HEPTANE	GLASS	12,5	NO CHANGE	4
WATER (DESTILLED)	ALUMINIUM	15,1	NO CHANGE	0

1 DOT SYNTHETIC (ONE WAY)

2 TOTAL

3 TOTAL QUARTZ 700, 10 W 40

4 TOTAL EURO 95

## FASSON TRANSFER PET MATT SILVER – S8015 – BG42WH (AFL139)

THERMAL TRANSFER PRINTING:

### Printability – Physical Resistance

#### Flat head printers:

RIBBON	SETTINGS		PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
	SPEED	ENERGY				
ARMOR AXR7+	4	15	+	D*	++	++
ARMOR APR5	5	15	++	D*	++	++
RICOH B110A	5	15	++	D*	++	++
SONY TR4070	3	15	++	D*	++	++
SONY TR4065	4	15	++	D*	++	++

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER ZEBRA STRIPE S-500.

#### Near edge printers:

RIBBON	SETTINGS	PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
ARMOR APR 600	6 "/s	++	D*	++	0
RICOH B120 Ex2	6 "/s	++	D*	++	++
SONY TR4500	6 "/s	++	D*	++	0

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER AVERY TTX 450 – NEAR EDGE.

++ : EXCELLENT + : GOOD 0 : ACCEPTABLE - : POOR

ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE) GRADE: INFORMATION ABOUT BARCODE QUALITY

A : EXCELLENT B : GOOD C : ACCEPTABLE D : READABLE WITH DIFFICULTY

\* THE PRINT QUALITY IS GOOD, BUT DUE TO THE REFLECTION OF METALLISED FILMS THE CONTRAST IS LOW

#### Chemical Resistance:

The printed samples were wetted on the surface with a soft clean cotton cloth soaked in the test solution by wiping 10 times back and forth with light pressure. After 5 seconds they were dried with a clean dry soft cloth. After 15 minutes the evaluation took place.

	AXR7+	APR5	B110A	TR4070	TR4065	APR600	B120EX2	TR4500
ANTI-FREEZE <sup>1</sup>	+	+	+	+	+	+	+	+
BRAKE FLUID <sup>2</sup>	+	+	+	+	+	+	+	+
CLEANER SOLVENT <sup>3</sup>	+	+	+	+	+	-	-	-
ENGINE OIL <sup>4</sup>	+	+	+	+	+	+	+	+
GASOLINE <sup>5</sup>	+	+	+	+	+	-	-	-
ISOPROPANOL	+	+	+	+	+	-	-	+
PRESERVATIVE <sup>6</sup>	+	+	+	+	+	-	-	-
SPIRIT	+	+	+	+	+	+	+	+

+: GOOD (NO CHANGE) 0: ACCEPTABLE (MINOR CHANGE, STILL READABLE) -: POOR

1 SPEEDFROST "SPEEDFROIL" 1:1 IN WATER

2 "ATE" SL DOT 4

3 "CARAMBA" KALTREINIGER

4 BP 15 W-40

5 SUPER UNLEADED

6 "NIGRIN" HARTWACHSPOLITUR

**FASSON TRANSFER PET MATT SILVER – S8015 – BG42WH (AFL139)**

APPENDIX 2:  
**Compliance Data**

**UL – Underwriters Laboratories**

File Number: MH27538

This material is UL recognized for exposure indoors and outdoors to high humidity or occasional exposure to water.

SUBSTRATE	MINIMUM TEMPERATURE (°C)	MAXIMUM TEMPERATURE (°C)	I	I/O
POLYVINYL CHLORIDE	-	+40	X	
POLYETHYLENE	-	+40	X	
POLYPROPYLENE	-	+40	X	
STAINLESS STEEL	-40	+150		
GALVANIZED STEEL	-40	+150		
POLYURETHANE POWDER PAINT	-40	+150		X
EPOXY PAINT	-40	+150		X
PORCELAIN	-40	+150		X
ALKYD PAINT	-40	+150		X
ALUMINUM	-23	+150		X
UNSATURATED (THERMOSET)				
POLYESTER	-23	+150		X
EPOXY POWDER PAINT	-23	+150		X
POLYESTER POWDER PAINT	-23	+150		X
POLYESTER PAINT	-23	+150		X
ACRYLIC POWDER PAINT	-23	+150		X
ACRYLIC PAINT	-23	+150		X
PHENOLIC	-23	+100		X
POLYCARBONATE	-23	+100		X
NYLON	-23	+80		X
POLYPHENYLENE OXIDE	-23	+80		X
ABS	-23	+60		X
POLYSTYRENE	-23	+40		X

I: INDOORS, I/O: INDOORS AND OUTDOORS

THE UL CERTIFICATION INCLUDES THE PRINTING WITH ONE OR MORE OF THE FOLLOWING THERMAL TRANSFER RIBBONS:  
 ARMOR "APR5", "AXR7+", ASTRO-MED "RV2", "R5", GRAFICOR "GC14", "GC12", KURZ "K501", RICOH "B-110A", "B-110CX", PELIKAN "T016"  
 AND "T001"

**FASSON OVERLAMINATING PET 25 – AL170 – HF80 (PRODUCT CODE AFJ117)**

**Facestock**

A crystal clear, gloss overlaminating polyester.

Basis weight:	33 g/m <sup>2</sup>	ISO 536
Caliper:	0.028 mm	ISO 534

**Adhesive**

AL170 is a strong, permanent, solvent-based acrylate adhesive which is distinguished by very high ageing stability and chemical resistance.

Type:	Solvent Based Acrylate	
Coat weight:	20 g/m <sup>2</sup> ± 2 g/m <sup>2</sup>	
Initial Tack:	500 N/m	FTM 9 glass
Peel Adhesion:	540 N/m	FTM 2 steel
Min. application temperature:	0 °C	
Min. service temperature:	-80 °C	
Max. service temperature:	+150 °C	

**Liner**

HF80 is a very stable siliconized hygroflat backing paper.

Basis weight:	80 g/m <sup>2</sup>	ISO 536
Caliper:	0,084 mm	ISO 534
Opacity:	81 %	DIN 53147
Tensile Strength:	80 N/15mm	MD

This liner can be used for fanfolding.

**Total construction caliper**

0,132 mm +/- 10%

**Typical Values**

Typical values, not for specification use:  
see Appendix 1.

**Applications and use**

The glass clear material is suitable for overlaminating films or papers providing durable labels with high gloss and good abrasion and chemical resistance.

**Printing and conversion**

Overlaminating PET 25 allows additional printing with conventional printing techniques and can be imprinting using thermal transfer ribbons. For best scratch resistance resin ribbons are recommended.

Due to the low caliper of this film dispensing itself is not possible.

**UL approval**

This product is UL recognized for indoor use, the file number is MH27538. For specific information on approved conditions, see appendix 2.

**Shelf life**

Two years when stored at 22 °C and 50 % RH.

**Statement of Practical Use**

As with all pressure sensitive materials, this product should be tested thoroughly under end-use conditions to ensure it meets the requirements of the specific application.

**FASSON OVERLAMINATING PET 25 – AL170 – HF80 (AFJ117)**

APPENDIX 1:

**Performance Data**

Note: the following technical data should be considered representative or typical only and should not be used for specification purposes.

**Peel Adhesion:**

FTM1: 180°, 300 mm/min, dwell time: 48 hours

SURFACE	N/25MM
ABS	11,5
ALUMINIUM	18,0
AUTOMOTIVE LAQUERED PANELS	11,0
GLASS	15,0
HDPE	3,0
LDPE	2,0
PA6	11,5
STAINLESS STEEL	13,0

**Chemical Resistance:**

The performance results are based on 4 hours immersions at room temperature unless otherwise noted. Samples were applied to the test panel and conditioned for 24 hours before immersion and evaluated immediately upon removal. Peel adhesion was measured according to FTM1.

CHEMICAL	TEST SUBSTRATE	N/25MM	VISUAL APPEARANCE	EDGE PENETRATION(MM)
BRAKE FLUID <sup>1</sup>	GLASS	14,0	NO CHANGE	0
DIESEL <sup>2</sup>	GLASS	12,7	NO CHANGE	0
ENGINE OIL <sup>3</sup>	GLASS	13,9	NO CHANGE	0
GASOLINE <sup>4</sup>	GLASS	10,2	NO CHANGE	4
HEPTANE	GLASS	11,5	NO CHANGE	3

1 DOT SYNTHETIC (ONE WAY)

2 TOTAL

3 TOTAL QUARTZ 700, 10 W 40

4 TOTAL EURO 95

**FASSON OVERLAMINATING PET 25 – AL170 – HF80 (AFJ117)**

THERMAL TRANSFER PRINTING:

**Printability – Physical Resistance**

**Flat head printers:**

RIBBON	SETTINGS		PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
	SPEED	ENERGY				
ARMOR AXR7+	3	20	+	*	+	+
DAI NIPPON R-510	2	20	++	*	++	++
RICOH B110Cx	3	10	-	*	++	++
SONY TR4070	3	10	+	*	++	++
SONY TR5070	3	10	+	*	++	++

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER ZEBRA STRIPE S-500.

**Near edge printers:**

RIBBON	SETTINGS		PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
	SPEED	ENERGY				
ARMOR AXR 600	4	50	++	*	++	++
RICOH B120 Ec	4	50	+	*	O	+
SONY TR4570	4	50	++	*	-	O

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER AVERY TTX 450 – NEAR EDGE.

++ : EXCELLENT + : GOOD O : ACCEPTABLE - : POOR

ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE) GRADE: INFORMATION ABOUT BARCODE QUALITY

A : EXCELLENT B : GOOD C : ACCEPTABLE D : READABLE WITH DIFFICULTY

\*: DEPENDING ON THE LAMINATED MATERIAL

**Chemical Resistance:**

The printed samples were wetted on the surface with a soft clean cotton cloth soaked in the test solution by wiping 10 times back and forth with light pressure. After 5 seconds they were dried with a clean dry soft cloth. After 15 minutes the evaluation took place.

	AXR7+	R-510	B110Cx	TR4070	TR5070	AXR600	B120Ec	TR4570
ANTI-FREEZE <sup>1</sup>	+	+	+	+	+	+	+	+
BRAKE FLUID <sup>2</sup>	+	+	+	+	+	-	-	+
CLEANER SOLVENT <sup>3</sup>	+	+	O	+	+	+	+	+
ENGINE OIL <sup>4</sup>	+	+	+	+	+	+	+	+
GASOLINE <sup>5</sup>	+	+	+	+	+	+	+	+
ISOPROPANOL	+	+	+	+	+	+	+	-
PRESERVATIVE <sup>6</sup>	+	+	+	+	+	+	+	+
SPIRIT	+	+	+	+	+	+	+	-

+ : GOOD (NO CHANGE) O : ACCEPTABLE (MINOR CHANGE, STILL READABLE) - : POOR

1 SPEEDFROST "SPEEDFROIL" 1:1 IN WATER

2 "ATE" SL DOT 4

3 "CARAMBA" KALTREINIGER

4 BP 15 W-40

5 SUPER UNLEADED

6 "NIGRIN" HARTWACHSPOLITUR

**FASSON OVERLAMINATING PET 25 – AL170 – HF80 (AFJ117)**

APPENDIX 2:

**Compliance Data****UL – Underwriters Laboratories**

File Number: 27538

This material is UL approved as pressure-sensitive overlamination for producing finished printed labels. The conditions of acceptance are:

- Affixed to polyester label material, maximum temperature 125°C, minimum temperature -40°C. Suitable where exposed indoors to high humidity or occasional exposure to water.
- Affixed to vinyl label material, maximum temperature 60°C, minimum temperature -40°C. Suitable where exposed indoors to high humidity or occasional exposure to water.

The UL certification includes the printing with one or more of the following thermal transfer ribbons: Armor "AXR7+", "AXR600", DaiNippon "R510", Ricoh "B110CX", "B110C" and Sony "TR5075"

**FASSON POLYSUPER MATT WHITE – S8020 – BG42WH (PRODUCT CODE AFJ125)**
**Facestock**

A matt white PE film with an extremely smooth surface which ensures very good registration accuracy and excellent printing results.

Basis weight:	92 g/m <sup>2</sup>	ISO 536
Caliper:	0.090 mm	ISO 534

**Adhesive**

S8020 is a clear permanent adhesive featuring excellent UV resistance and weatherability together with good adhesion performance, even on apolar substrates.

Type:	Emulsion Acrylic	
Coat weight:	20 g/m <sup>2</sup> ± 2 g/m <sup>2</sup>	
Initial Tack:	330 N/m	FTM 9 glass
Peel Adhesion:	400 N/m	FTM 2 steel
Min. application temperature:		+5 °C
Min. Service temperature:		-40 °C
Max. service temperature:		+70 °C

**Liner**

BG42 white: siliconized glassine paper, wood-free, super calendered and extremely tough and tear-resistant despite its thinness.

Basis weight:	65 g/m <sup>2</sup>	ISO 536
Caliper:	0,058 mm	ISO 534
Transparency:	48 %	DIN 53147
Tensile Strength:	105 N/15mm	MD

This liner is not recommended for fanfolding.

**Total construction caliper**

0,168 mm +/- 10%

**Typical Values**

Typical values, not for specification use: see Appendix 1.

**Applications and use**

The cast film is stressfree and can be applied to irregular substrates.

Polysuper matt white displays excellent resistance to cold, whilst its high gas permeability makes it the ideal labelling material for outgassing substrates.

For special requirements we strongly recommend application tests.

**Printing and conversion**

In addition to very good thermal transfer printing ability the product can also be printed by all conventional roll label techniques, such as flexo, UV letterpress, silkscreen.

The ink anchorage property is very good, even without any additional varnish or corona treatment. The surface tension is higher than 38 mN/mm at least 6 months after delivery.

Specific testing is required.

Polysuper matt white displays good die-cutting properties, also at high machine speeds.

Due to the flexibility of the film dispensing of difficult shaped labels might cause problems. Tests are advised.

**UL approval**

This product is UL recognized for indoor use, the file number is MH27538. For specific information on approved conditions, see appendix 2.

**Shelf life**

Two years when stored at 22 °C and 50% RH.

**Statement of Practical Use**

As with all pressure sensitive materials, this product should be tested thoroughly under end-use conditions to ensure it meets the requirements of the specific application.

**FASSON POLYSUPER MATT WHITE – S8020 – BG42WH (AFJ125)**

APPENDIX 1:

**Performance Data**

Note: the following technical data should be considered representative or typical only and should not be used for specification purposes.

**Peel Adhesion:**

FTM1: 180°, 300 mm/min, dwell time: 48 hours

SURFACE	N/25MM
ABS	9,5
ALUMINIUM	10,5
AUTOMOTIVE LAQUERED PANELS	10,0
GLASS	9,0
HDPE	6,0
LDPE	5,5
PA6	13,5
STAINLESS STEEL	12,5

**Chemical Resistance:**

The performance results are based on 4 hours immersions at room temperature unless otherwise noted. Samples were applied to the test panel and conditioned for 24 hours before immersion and evaluated immediately upon removal. Peel adhesion was measured at 180° peel.

CHEMICAL	TEST SUBSTRATE	N/25MM	VISUAL APPEARANCE	EDGE PENETRATION(MM)
BRAKE FLUID <sup>1</sup>	GLASS	14,8	NO CHANGE	0
DIESEL <sup>2</sup>	GLASS	11,6	NO CHANGE	0
ENGINE OIL <sup>3</sup>	GLASS	12,5	NO CHANGE	0
GASOLINE <sup>4</sup>	GLASS	8,8	NO CHANGE	3
HEPTANE	GLASS	8,2	NO CHANGE	3
WATER, DESTILLED	ALUMINIUM	15,1	NO CHANGE	3

1 DOT SYNTHETIC (ONE WAY)

2 TOTAL

3 TOTAL QUARTZ 700, 10 W 40

4 TOTAL EURO 95

**FASSON POLYSUPER MATT WHITE – S8020 – BG42WH (AFJ125)**

THERMAL TRANSFER PRINTING:

**Printability – Physical Resistance**

**Flat head printers:**

RIBBON	SETTINGS		PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
	SPEED	ENERGY				
ARMOR AXR7+	3	20	++	B	++	++
DAI NIPPON R510	2	20	++	A	++	++
RICOH B110Cx	3	10	+	A	++	++
SONY TR4070	3	10	+	A	o	+
SONY TR5070	4	15	+	A	++	++

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER ZEBRA STRIPE S-500.

**Near edge printers:**

RIBBON	SETTINGS	PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
ARMOR AXR 600	4 "/s	++	A	++	++
RICOH B120 Ec	4 "/s	++	B	+	+
SONY TR4570	4 "/s	++	A	++	++

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER AVERY TTX 450 – NEAR EDGE.

++ : EXCELLENT + : GOOD o : ACCEPTABLE - : POOR

ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE) GRADE: INFORMATION ABOUT BARCODE QUALITY

A : EXCELLENT B : GOOD C : ACCEPTABLE D : READABLE WITH DIFFICULTY

**Chemical Resistance:**

The printed samples were wetted on the surface with a soft clean cotton cloth soaked in the test solution by wiping 10 times back and forth with light pressure. After 5 seconds they were dried with a clean dry soft cloth. After 15 minutes the evaluation took place.

	AXR7+	R510	B110Cx	TR4070	TR5070	AXR600	B120Ec	TR4570
ANTI-FREEZE <sup>1</sup>	+	+	+	+	+	+	+	+
BRAKE FLUID <sup>2</sup>	+	+	+	+	+	+	-	+
CLEANER SOLVENT <sup>3</sup>	+	+	+	+	+	+	+	+
ENGINE OIL <sup>4</sup>	+	+	+	+	+	+	+	+
GASOLINE <sup>5</sup>	+	+	+	+	+	+	+	-
ISOPROPANOL	+	+	+	+	+	+	+	+
PRESERVATIVE <sup>6</sup>	+	+	+	+	+	+	+	-
SPIRIT	+	+	+	+	+	+	+	+

+ : GOOD (NO CHANGE) o : ACCEPTABLE (MINOR CHANGE, STILL READABLE) - : POOR

1 SPEEDFROST "SPEEDFROIL" 1:1 IN WATER

2 "ATE" SL DOT 4

3 "CARAMBA" KALTREINIGER

4 BP 15 W-40

5 SUPER UNLEADED

6 "NIGRIN" HARTWACHSPOLITUR

**FASSON POLYSUPER MATT WHITE – S8020 – BG42WH (AFJ125)**

APPENDIX 2:  
**Compliance Data**

**UL – Underwriters Laboratories**

File Number: MH27538

This material is UL recognized for exposure indoors to high humidity or occasional exposure to water.

SUBSTRATE	MINIMUM TEMPERATURE (°C)	MAXIMUM TEMPERATURE (°C)
STAINLESS STEEL	-40	+150
ALUMINUM	-40	+150
GALVANIZED STEEL	-40	+150
ALKYD PAINT	-40	+150
NYLON	-40	+100
POLYCARBONATE	-40	+100
ABS	-40	+80

THE UL CERTIFICATION INCLUDES THE PRINTING WITH ONE OR MORE OF THE FOLLOWING THERMAL TRANSFER RIBBONS:  
 ARMOR "AXR7+", "AXR600", DAINIPPON "R510", RICOH "B110C", "B110CX" AND SONY "TR5070"

**FASSON PVC OUTDOOR WHITE – AL170 – BG42WH (PRODUCT CODE AFJ133)**

**Facestock**

A white glossy polymeric plasticised vinyl film.

Basis weight:	95 g/m <sup>2</sup>	ISO 536
Caliper:	0.070 mm	ISO 534

**Adhesive**

AL170 is a strong, permanent, solvent-based acrylate adhesive which is distinguished by very high ageing stability and chemical resistance.

Type:	Solvent Based Acrylate	
Coat Weight:	24 g/m <sup>2</sup> ± 2 g/m <sup>2</sup>	
Initial Tack:	660 N/m	FTM 9 glass
Peel Adhesion:	640 N/m	FTM 2 steel
Min. application temperature:	0 °C	
Min. service temperature:	-40 °C	
Max. service temperature:	+70 °C	

**Liner**

BG42 white: siliconized glassine paper, wood-free, super calendered and extremely tough and tear-resistant despite its thinness.

Basis weight:	65 g/m <sup>2</sup>	ISO 536
Caliper:	0,058 mm	ISO 534
Transparency:	48 %	DIN 53147
Tensile Strength:	105 N/15mm	MD

This liner is not recommended for fanfolding.

**Total construction caliper**

0,138 mm +/- 10%

**Typical Values**

Typical values, not for specification use: see Appendix 1.

**Applications and use**

PVC outdoor white – AL170 is ideal for many medium-life indoor and outdoor applications. A durability of 7 years (vertical exposure) can be expected.<sup>1</sup>

The material is self-extinguishing. For special requirements we strongly recommend application tests.

**Printing and conversion**

PVC outdoor white features good thermal transfer printability; for good abrasion resistance we recommend the use of resin ribbons.

The material shows good die cutting performance.

**UL approval**

This product is UL recognized for indoor and outdoor use, the file number is MH27538. For specific information on approved conditions, see appendix 2.

**Flammability**

This product is self-extinguishing to first measuring mark. Test method: FMVSS 302

**Shelf life**

Two years when stored at 22 °C and 50% RH.

**Statement of Practical Use**

As with all pressure sensitive materials, this product should be tested thoroughly under end-use conditions to ensure it meets the requirements of the specific application.

1 The durability is based on middle European exposure conditions. Actual performance life will depend on substrate preparation, exposure conditions and maintenance of the marking. For instance, in the case of labels facing south, in areas of long high temperature exposure such as southern European countries, in industrially polluted areas or high altitudes exterior performance will be decreased.

**FASSON PVC OUTDOOR WHITE – AL170 – BG42WH (AFJ133)**

APPENDIX 1:

**Performance Data**

Note: the following technical data should be considered representative or typical only and should not be used for specification purposes.

**Accelerated ageing**

SAE J 1960, 1500 hours exposure:

No negative impact on film performance

**Peel Adhesion:**

FTM1: 180°, 300 mm/min, dwell time: 48 hours

<b>SURFACE</b>	<b>N/25MM</b>
ABS	19,5
ALUMINIUM	23,0
AUTOMOTIVE LAQUERED PANELS	23,0
GLASS	26,0
HDPE	6,0
LDPE	3,8
PA6	20,0
STAINLESS STEEL	22,0

**FASSON PVC OUTDOOR WHITE – AL170 – BG42WH (AFJ133)**

THERMAL TRANSFER PRINTING:

**Printability – Physical Resistance**

**Flat head printers:**

RIBBON	SETTINGS		PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
	SPEED	ENERGY				
ARMOR AXR7+	3	20	+	A	++	++
DAI NIPPON R-510	3	20	+	A	++	++
RICOH B110Cx	3	10	+	A	++	++
SONY TR4070	3	10	+	A	++	++
SONY TR5070	3	10	++	A	++	++

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER ZEBRA STRIPE S-500.

**Near edge printers:**

RIBBON	SETTINGS		PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
	SPEED	ENERGY				
ARMOR AXR 600	4	50	+	A	++	++
RICOH B120 Ec	4	50	+	A	++	++
SONY TR4570	4	50	+	A	-	O

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER AVERY TTX 450 – NEAR EDGE.

++ : EXCELLENT + : GOOD O : ACCEPTABLE - : POOR

ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE) GRADE: INFORMATION ABOUT BARCODE QUALITY

A : EXCELLENT B : GOOD C : ACCEPTABLE D : READABLE WITH DIFFICULTY

**Chemical Resistance:**

The printed samples were wetted on the surface with a soft clean cotton cloth soaked in the test solution by wiping 10 times back and forth with light pressure. After 5 seconds they were dried with a clean dry soft cloth. After 15 minutes the evaluation took place.

	AXR7+	R-510	B110Cx	TR4070	TR5070	AXR600	B120Ec	TR4570
ANTI-FREEZE <sup>1</sup>	+	+	+	+	+	+	+	+
BRAKE FLUID <sup>2</sup>	+	+	+	+	+	O	-	+
CLEANER SOLVENT <sup>3</sup>	+	+	+	+	+	+	+	-
ENGINE OIL <sup>4</sup>	+	+	+	+	+	+	+	+
GASOLINE <sup>5</sup>	+	+	+	+	+	+	+	-
ISOPROPANOL	+	+	+	+	+	+	+	O
PRESERVATIVE <sup>6</sup>	+	+	+	+	+	+	+	-
SPIRIT	+	+	+	+	+	+	+	+

+ : GOOD (NO CHANGE) O : ACCEPTABLE (MINOR CHANGE, STILL READABLE) - : POOR

1 SPEEDFROST "SPEEDFROIL" 1:1 IN WATER

2 "ATE" SL DOT 4

3 "CARAMBA" KALTREINIGER

4 BP 15 W-40

5 SUPER UNLEADED

6 "NIGRIN" HARTWACHSPOLITUR

**FASSON PVC OUTDOOR WHITE – AL170 – BG42WH (AFJ133)**

APPENDIX 2:

**Compliance Data**

**UL – Underwriters Laboratories**

File Number: MH27538

This material is UL recognized for exposure indoors and outdoors to high humidity or occasional exposure to water.

SUBSTRATE	MINIMUM TEMPERATURE (°C)	MAXIMUM TEMPERATURE (°C)
ACRYLIC PAINT	-40	+60
ALKYD PAINT	-40	+60
ALUMINUM	-40	+60
GALVANIZED STEEL	-40	+60
POLYESTER PAINT	-40	+60
STAINLESS STEEL	-40	+60
POLYPROPYLENE	-40	+60
POLYSTYRENE	-40	+60
ABS	-40	+60

THE UL CERTIFICATION INCLUDES THE PRINTING WITH ONE OR MORE OF THE FOLLOWING THERMAL TRANSFER RIBBONS:  
 ARMOR "AXR7+", "AXR600", DaiNIPPON "R510", RICOH "B110CX", "B110C" AND SONY "TR5070"

**FASSON PVC OUTDOOR MATT WHITE – AL170 – BG42WH (PRODUCT CODE AGR226)**

**Facestock**

A white matt polymeric plasticised vinyl film.

Basis weight:	95 g/m <sup>2</sup>	ISO 536
Caliper:	0.070 mm	ISO 534

**Adhesive**

AL170 is a strong, permanent, solvent-based acrylate adhesive which is distinguished by very high ageing stability and chemical resistance.

Type:	solvent based acrylate	
Coat Weight:	24 g/m <sup>2</sup>	
Initial Tack:	660 N/m	FTM 9 glass
Peel Adhesion:	640 N/m	FTM 2 steel
Min. application temperature:	0 °C	
Min. service temperature:	-40 °C	
Max. service temperature:	+70 °C	

**Liner**

BG42 white: siliconized glassine paper, wood-free, super calendered and extremely tough and tear-resistant despite its thinness.

Basis weight:	65 g/m <sup>2</sup>	ISO 536
Caliper:	0,058 mm	ISO 534
Transparency:	48 %	DIN 53147
Tensile Strength:	105 N/15mm	MD

This liner is not recommended for fanfolding.

Total construction caliper  
0,138 mm +/- 10%

**Typical Values**

Typical values, not for specification use:  
see Appendix 1.

**Applications and use**

PVC outdoor matt white – AL170 is ideal for many medium-life indoor and outdoor applications. A durability of 7 years (vertical exposure) can be expected.<sup>1</sup>  
The material is self-extinguishing.  
For special requirements we strongly recommend application tests.

**Printing and conversion**

PVC outdoor matt white features good thermal transfer printability; for good abrasion resistance we recommend the use of resin ribbons.  
The material shows good die cutting performance.

**UL approval**

This product is UL recognized for indoor and outdoor use, the file number is MH27538.  
For specific information on approved conditions, see appendix 2.

**Flammability**

This product is self extinguishing to first measuring mark.  
Test method: FMVSS 302

**Shelf life**

Two years when stored at 22 °C and 50% RH.

**Statement of Practical Use**

As with all pressure sensitive materials, this product should be tested thoroughly under end-use conditions to ensure it meets the requirements of the specific application.

1 The durability is based on middle European exposure conditions. Actual performance life will depend on substrate preparation, exposure conditions and maintenance of the marking. For instance, in the case of labels facing south, in areas of long high temperature exposure such as southern European countries, in industrially polluted areas or high altitudes exterior performance will be decreased.

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**FASSON PVC OUTDOOR MATT WHITE – AL170 – BG42WH (AGR226)**

APPENDIX 1:

**Performance Data**

Note: the following technical data should be considered representative or typical only and should not be used for specification purposes.

**Accelerated ageing**

SAE J 1960, 1500 hours exposure:

No negative impact on film performance.

**Peel Adhesion:**

FTM1: 180°, 300 mm/min, dwell time: 48 hours

<b>SURFACE</b>	<b>N/25MM</b>
ABS	19,5
ALUMINIUM	23,0
AUTOMOTIVE LAQUERED PANELS	23,0
GLASS	26,0
HDPE	6,0
LDPE	3,8
PA6	20,0
STAINLESS STEEL	22,0

**FASSON PVC OUTDOOR MATT WHITE – AL170 – BG42WH (AGR226)**

THERMAL TRANSFER PRINTING:  
**Printability – Physical Resistance**

**Flat head printers:**

RIBBON	SETTINGS		PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
	SPEED	ENERGY				
ARMOR AXR7+	3 "/s	+20	++	A	++	++
DAI NIPPON R-510	3 "/s	+20	++	A	++	++
RICOH B110Cx	3 "/s	+20	++	A	++	++
SONY TR4070	3 "/s	+20	++	A	++	++
SONY TR5070	3 "/s	+20	++	A	++	++

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER ZEBRA STRIPE S-500.

**Near edge printers:**

RIBBON	SETTINGS		PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
	SPEED	ENERGY				
ARMOR AXR 600	4 "/s	50	++	A	++	++
RICOH B120 Ec	4 "/s	50	++	A	++	+
SONY TR4570	4 "/s	50	++	A	++	0

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER AVERY TTX 450 – NEAR EDGE.

++ : EXCELLENT + : GOOD 0 : ACCEPTABLE - : POOR

ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE) GRADE: INFORMATION ABOUT BARCODE QUALITY

A : EXCELLENT B : GOOD C : ACCEPTABLE D : READABLE WITH DIFFICULTY

**Chemical Resistance:**

The printed samples were wetted on the surface with a soft clean cotton cloth soaked in the test solution by wiping 10 times back and forth with light pressure. After 5 seconds they were dried with a clean dry soft cloth. After 15 minutes the evaluation took place.

	AXR7+	R-510	B110Cx	TR4070	TR5070	AXR600	B120Ec	TR4570
ANTI-FREEZE <sup>1</sup>	+	+	+	+	+	+	+	+
BRAKE FLUID <sup>2</sup>	0	+	0	0	0	-	-	-
CLEANER SOLVENT <sup>3</sup>	+	+	+	+	+	0	0	-
ENGINE OIL <sup>4</sup>	+	+	+	+	+	+	+	+
GASOLINE <sup>5</sup>	0	+	+	+	+	-	-	-
ISOPROPANOL	+	+	+	+	+	0	+	-
PRESERVATIVE <sup>6</sup>	+	+	+	+	+	-	-	-
SPIRIT	+	+	+	+	+	+	+	0

+ : GOOD (NO CHANGE) 0 : ACCEPTABLE (MINOR CHANGE, STILL READABLE) - : POOR

1 ANTI-FREEZE "ONEWAY" 1:1 IN WATER

2 "EUROL" SAE J1703 DOT 4

3 "NIGRIN" BREMSEN & TEILE REINIGER

4 TOTAL QUARTZ 5000 15 W-40

5 SUPER UNLEADED

6 "NIGRIN" HARTWACHSPOLITUR

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**FASSON PVC OUTDOOR MATT WHITE – AL170 – BG42WH (AGR226)**

APPENDIX 2:

**Compliance Data****UL – Underwriters Laboratories**

File Number: MH27538

This material is UL recognized for exposure indoors and outdoors to high humidity or occasional exposure to water.

<b>SUBSTRATE</b>	<b>MINIMUM TEMPERATURE (°C)</b>	<b>MAXIMUM TEMPERATURE (°C)</b>
ACRYLIC PAINT	-40	+60
ALKYD PAINT	-40	+60
ALUMINUM	-40	+60
GALVANIZED STEEL	-40	+60
POLYESTER PAINT	-40	+60
STAINLESS STEEL	-40	+60
POLYPROPYLENE	-40	+60
POLYSTYRENE	-40	+60
ABS	-40	+60

THE UL CERTIFICATION INCLUDES THE PRINTING WITH ONE OR MORE OF THE FOLLOWING THERMAL TRANSFER RIBBONS:  
ARMOR "AXR7+", "AXR600", DaiNIPPON "R510", RICOH "B110CX", "B110C" AND SONY "TR5070"

**FASSON PET VOID CHECK MATT CHROME – S8015 – BG42WH (PRODUCT CODE AGW529)**

**Facestock**

A matt silver polyester film with backside metallization and tamper proof feature "checkerboard". The surface is covered with a topcoat designed for thermal transfer printing.

Basis weight: 72 g/m<sup>2</sup> ISO 536  
 Caliper: 0.053 mm ISO 534

**Adhesive**

The S8015 is a high strength permanent acrylic adhesive featuring high initial tack, adhesion and shear. It offers strong permanent bonding to a wide variety of substrates, including high surface energy, low surface energy and powder coated substrates.

Type: solvent acrylic  
 Coat weight: 26 g/m<sup>2</sup> ± 2 g/m<sup>2</sup>  
 Initial Tack: 650 N/m FTM 9 glass  
 Peel Adhesion: 440 N/m FTM 2 steel  
 Min. Application temperature: +7°C  
 Min. service temperature: -40 °C  
 Max. service temperature: +150 °C  
 Depending on the substrate the void effect works only up to a temperature of + 60 – 80°C.

**Liner**

BG42 white: siliconized glassine paper, wood-free, super calendered and extremely tough and tear-resistant despite its thinness.

Basis weight: 65 g/m<sup>2</sup> ISO 536  
 Caliper: 0,058 mm ISO 534  
 Transparency: 48 % DIN 53147  
 Tensile Strength: 105 N/15 mm MD

This liner is not recommended for fanfolding.

**Total construction caliper**

0,137 mm +/- 10%

These are typical values, not for specification purpose!

**Applications and use**

Once applied to the substrate on removal, an irreversible "checkerboard" footprint message will detach itself from the face film. Labels which have been removed cannot be reapplied since repositioning will leave visible proof that tampering has taken place. Thanks to the special surface coating, excellent results can be achieved with thermal transfer printers equipped with conventional or near-edge print heads and using pure resin or wax/resin ribbons. Typical applications include name plate labels which show tampering and should not be re-usable. The adhesive S8015 is recommended for low surface energy substrates, like some plastics, powder coatings. The void effect is functional on some rough plastic substrates as well. For special requirements we strongly recommend application tests on the original substrate, under real conditions.

**Printing and conversion**

In addition to thermal transfer printing the product can also be printed by all conventional roll label techniques, such as flexo, UV letterpress, silkscreen. Specific testing is required. For easy diecutting sharp corners should be avoided.

**UL approval**

This product is UL recognized for indoor and outdoor use, the file number is MH27538. For specific information on approved conditions, see appendix 2.

**Shelf life**

One year when stored at 22 °C and 50% RH.

**Statement of Practical Use**

As with all pressure sensitive materials, this product should be tested thoroughly under end-use conditions to ensure it meets the requirements of the specific application.

**FASSON PET VOID CHECK MATT CHROME – S8015 – BG42WH (AGW529)**

APPENDIX 1:

**Performance Data**

Note: the following technical data should be considered representative or typical only and should not be used for specification purposes.

**Peel Adhesion:**

FTM1: 180°, 300 mm/min, dwell time: 48 hours

SURFACE	N/25MM
ABS	7,5
ALUMINIUM	8,0
AUTOMOTIVE LAQUERED PANELS	8,0
GLASS	8,0
HDPE	8,0
LDPE	7,5
PA6	8,0
STAINLESS STEEL	8,0

**Chemical Resistance:**

The performance results are based on 4 hours immersions at room temperature unless otherwise noted. Samples were applied to the test panel and conditioned for 24 hours before immersion and evaluated immediately upon removal. Peel adhesion was measured according to FTM1.

CHEMICAL	TEST SUBSTRATE	N/25MM	VISUAL APPEARANCE	EDGE PENETRATION (MM)
BRAKE FLUID <sup>1</sup>	GLASS	8,0	NO CHANGE	0
DIESEL <sup>2</sup>	GLASS	7,8	NO CHANGE	1
ENGINE OIL <sup>3</sup>	GLASS	8,5	NO CHANGE	0
GASOLINE <sup>4</sup>	GLASS	4,8	NO CHANGE	3
HEPTANE	GLASS	5,0	NO CHANGE	3
WATER, DESTILLED	ALUMINIUM	7,8	NO CHANGE	0

1 DOT 4 SYNTHETIC (ONE WAY)

2 TOTAL

3 TOTAL QUARTZ 700, 10 W 40

4 TOTAL EURO 95

**FASSON PET VOID CHECK MATT CHROME – S8015 – BG42WH (AGW529)**

THERMAL TRANSFER PRINTING:

**Printability – Physical Resistance**
**Flat head printers:**

RIBBON	SETTINGS		PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
	SPEED	ENERGY				
ARMOR AXR7+	3	20	++	B <sup>1</sup>	++	++
DAI NIPPON R-510	3	20	++	B <sup>1</sup>	++	++
SONY TR4070	3	10	++	B <sup>1</sup>	++	++
SONY TR5070	3	10	++	B <sup>1</sup>	++	++

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER ZEBRA STRIPE S-500.

**Near edge printers:**

RIBBON	SETTINGS	PRINT QUALITY	ANSI GRADE	SCRATCH RESISTANCE	TAPE RESISTANCE
ARMOR AXR 600	4 "/s	++	C <sup>1</sup>	++	++
SONY TR4570	4 "/s	++	B <sup>1</sup>	++	O

THE PRINT TESTS WERE PERFORMED WITH THE PRINTER AVERY TTX 450 – NEAR EDGE.

++ : EXCELLENT + : GOOD O : ACCEPTABLE - : POOR

 1 THE PRINT QUALITY IS GOOD, BUT DUE TO THE REFLECTION OF METALLISED FILMS THE CONTRAST IS LOW  
 ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE) GRADE: INFORMATION ABOUT BARCODE QUALITY  
 A : EXCELLENT B : GOOD C : ACCEPTABLE D : READABLE WITH DIFFICULTY

**Chemical Resistance:**

The printed samples were wetted on the surface with a soft clean cotton cloth soaked in the test solution by wiping 10 times back and forth with light pressure. After 5 seconds they were dried with a clean dry soft cloth. After 15 minutes the evaluation took place.

	AXR7+	R-510	B110Cx	TR4070	TR4570	TR5070	AXR600	B120Ec
ANTI-FREEZE <sup>1</sup>	+	+	+	+	+	+	+	+
BRAKE FLUID <sup>2</sup>	O	+	+	O	-	+	-	-
CLEANER SOLVENT <sup>3</sup>	+	+	+	+	O	+	O	O
ENGINE OIL <sup>4</sup>	+	+	+	+	+	+	+	+
GASOLINE <sup>5</sup>	+	+	+	O	-	+	-	-
ISOPROPANOL	+	+	+	+	O	+	+	-
SPIRIT	+	+	+	+	-	+	+	+

+ : GOOD (NO CHANGE) O : ACCEPTABLE (MINOR CHANGE, STILL READABLE) - : POOR

1 SPEEDFROST "SPEEDFROIL" 1:1 IN WATER

2 "EUROL SAE J1703" DOT 4

3 NIGRIN BREMS- UND TEILEREINIGER

4 TOTAL QUARTZ 5000 15W-40

5 TEXACO SUPER LEAD FREE 95 OCTANE

**FASSON PET VOID CHECK MATT CHROME – S8015 – BG42WH (AGW529)**

APPENDIX 2:  
**Compliance Data**

**UL – Underwriters Laboratories**

File Number: MH27538

This material is UL recognized for exposure indoors to high humidity or occasional exposure to water.

SUBSTRATE	MINIMUM TEMPERATURE (°C)	MAXIMUM TEMPERATURE (°C)
POLYVINYL CHLORIDE	-	+40
POLYETHYLENE	-	+40
POLYPROPYLENE	-	+40
STAINLESS STEEL	-40	+150
GALVANIZED STEEL	-40	+150
POLYURETHANE POWDER PAINT	-40	+150
EPOXY PAINT	-40	+150
PORCELAIN	-40	+150
ALKYD PAINT	-40	+150
ALUMINIUM	-23	+150
UNSATURATED (THERMOSET) POLYESTER	-23	+150
EPOXY POWDER PAINT	-23	+150
POLYESTER POWDER PAINT	-23	+150
POLYESTER PAINT	-23	+150
ACRYLIC POWDER PAINT	-23	+150
ACRYLIC PAINT	-23	+150
PHENOLIC	-23	+100
POLYCARBONATE	-23	+100
NYLON	-23	+80
POLYPHENYLENE OXIDE	-23	+80
ABS	-23	+60
POLYSTYRENE	-23	+40

THE UL CERTIFICATION INCLUDES THE PRINTING WITH ONE OR MORE OF THE FOLLOWING THERMAL TRANSFER RIBBONS:  
 ARMOR “AXR600”, “AXR7+”, RICOH “B110C”, SONY “4070”, “TR4570” AND “TR5070”.

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