



AA145

Fasson ® TRANSFER PET MATT WHITE - AL170-BG42WH

Key features

- > Good TT printability.
- > Very high resistance of TT print against harsh chemicals as used in the automotive industry.

- > UL and CSA recognised label material.
- > Solvent acrylic adhesive, distinguished by its excellent resistance against harsh chemicals, UV light and heat; for labelling metal or other high surface energy substrates.

Facestock

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

Basis Weight	74 g/m ²	ISO 536
Caliper	55 µm	ISO 534

Adhesive

AL170 is a strong, permanent, solvent-based acrylate adhesive.

Liner

BG42 white, a supercalendered glassine paper.

Basis Weight	64 g/m ²	ISO 536
Caliper	57 µm	ISO 534
Transparency	50 %	DIN 53147

Laminate

Total Caliper	132 µm±10%	ISO 534
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Performance data

Initial Tack	10 N/25mm	FTM 9 Glass
Min. Application Temp.	0 °C	
Service temperature	-80°C to 150°C	
Peel Adhesion 90°	9 N/25mm	FTM 2 st.st. 24hr

Adhesive Type Solvent Acrylic

Adhesive Performance

AL170 is distinguished by very high ageing stability and features excellent resistance against chemicals, heat and UV light. It has a high peel adhesion on high and medium surface energy substrates.

Applications and use

Transfer PET matt white 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 white is the labelling of industrial products. Nameplates and logistics labels are typical examples. This film is distinguished by its high chemical resistance.

Conversion & printing

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 and CSA Recognitions

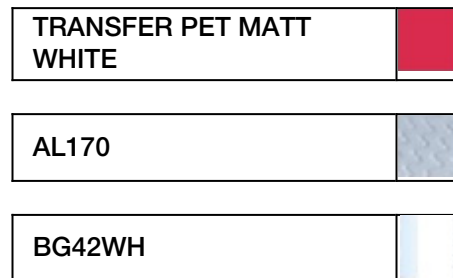
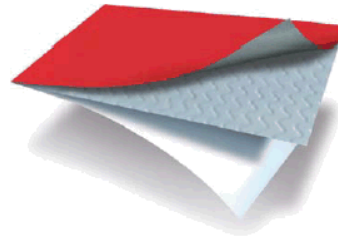
This product meets the requirements as stated in UL 969 and CSA C22.2 No. 0.15 for indoor and outdoor use. The UL file number is MH27538.

Shelf life

Two years under storage conditions as defined by FINAT (20-25°C; 40-50%RH)

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All data to be considered as typical values and subject to change without prior notice. Further testing is always recommended.

If you would like to make a suggestion or comment on this datasheet, please send an email to datasheet.mgmt@eu.averydennison.com

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	15,5
Automotive lacquered panels	16,5
Glass	3,5
HDPE	0,8
LDPE	15,5
PA6	19,0
Stainless Steel	15,0

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)
Ad Blue	Aluminium	18,0	No change	0
Biodiesel	Glass	20,0	No change	0
Bioethanol E85	Glass	17,0	No change	2
Brake Fluid	Glass	16,0	No change	0
Diesel	Glass	19,0	No change	0
Engine Oil	Glass	20,5	No change	0
Gasoline	Glass	14,0	No change	6
Heptane	Glass	16,0	No change	4
Water, distilled	Aluminium	19,0	No change	0

Chemicals: Ad Blue: Aral, Bioethanol E85: CropEnergies CropPower85, Brake Fluid: DOT 4 Synthetic (One Way) Diesel: TOTAL, Engine Oil: TOTAL quartz 700, 10 W 40, Gasoline: TOTAL Euro 95

Thermal Transfer Printing:

Printability – Physical Resistance

Flat head printers (tests were performed with the printer Zebra XII 140):

Ribbon	Settings		Print Quality	ANSI Grade	Scratch resistance	Tape resistance
	speed	energy				
Armor AXR7+	4	15	+	A	++	++

DNP R300	3	15	++	A	++	+
limak SP330	3	15	++	A	++	o
ITW B324	3	15	+	A	++	o
Ricoh B110A	5	15	++	A	++	++
Ricoh B110CX	3	15	+	A	++	++

Near edge printers (tests were performed with the printer Avery TTX 450 – Near Edge):

Ribbon	Settings	Print Quality	ANSI Grade	Scratch resistance	Tape resistance
Armor APR 600	4 "/s	o	C	++	-
DNP TR4500	4 "/s	++	B	++	-
Ricoh B120 E	4 "/s	+	B	++	-

ANSI (American National Standards Institute) Grade: information about barcode quality

A: excellent B: good C: acceptable D: readable with difficulty
 ++: excellent +: good o: 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+	R300	SP330	B324	B110A	B110C X	APR60 0	TR450 0	B120E
Ad Blue	+	+	+	+	+	+	+	+	+
Anti-Freeze	+	+	+	+	+	+	o	o	o
Biodiesel	+	+	+	+	o	+	-	-	-
Bioethanol E85	+	+	+	+	o	+	-	-	-
Brake fluid	o	o	+	+	o	o	o	o	o
Cleaner solvent	+	+	+	+	+	+	-	-	-
Engine oil	+	+	+	+	+	+	+	+	+
Gasoline	o	o	o	o	o	o	-	-	-
Hard wax polish	+	+	+	+	+	o	-	-	-
Isopropanol	+	+	+	+	+	+	o	o	o
Spirit	+	+	+	+	+	o	o	o	o

+: good (no change) o: acceptable (minor change, still readable) -: poor

Chemicals:

Ad Blue: Aral, Anti-Freeze: Speedfrost "Speedfroil" 1:1 in water, Bioethanol E85: CropEnergies CropPower85
 Brake Fluid: DOT 4 Synthetic (One Way), Cleaner Solvent: "Caramba" Cold Cleaner, Engine Oil: TOTAL quartz 700, 10 W 40
 Gasoline: TOTAL Euro 95, Hard Wax Polish: „Nigrin“ Hard Wax Polish

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	I	I/O
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		(°C)		
Acrylic paint	150	-40	X	X
Alkyd paint	150	-40	X	X
Aluminum	150	-40	X	X
Galvanized steel	150	-40	X	X
Polyester paint	150	-40	X	X
Stainless steel	150	-40	X	X
Polyethylene Terephthalate (PET)	100	-40	X	-
Polypropylene (PP)	80	-40	X	X
Polystyrene (PS)	80	-40	X	X
Polyvinyl Fluoride (PVF)	80	-23	X	-
ABS	60	-40	X	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”, “APR600”, “AXR7+”, “AXR8”, Astro-Med “RV2”, “R5”, DNP “TR4500”, “TR6075”, Graficor “GC14”, “GC12”, limak “SP330”, ITW “B324”, Kurz “K501”, Ricoh “B-110A”, “B-110CX”, “B120 Ex2”, Pelikan “T016”, “T001”.

CSA – Canadian Standards Association

UL has tested this product according to the requirements described in CSA C22.2 No. 0.15.

This product is C-UL recognized for indoor use, where exposed to wet locations.

The details are listed in the UL file number MH27538.

Group	Application Surface	Max. Temperature (°C)
Metals	Bare, plated or enamelled steel; bare, anodized or enamelled aluminium	+150
Plastic Group III	Polycarbonate, acetates, acrylics	+80
Plastic Group V	Polyamide, polyimide	+80
Plastic Group VI	ABS, styrene, styrene acrylonitrile	+80

The C-UL certification includes the printing with:

Armor APR600, AXR7+, AXR8, DNP TR4500, TR6075, limak SP330, ITW B324, Ricoh B110A, B110CX, B120 Ex2.

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Warranty

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