

Facestock

A clear glossy polymeric plasticised vinyl film.

Basis Weight	103 g/m ²	ISO 536
Caliper	80 µm	ISO 534

Adhesive

AL170 is a high cohesive, permanent, solvent-based acrylate adhesive.

Liner

Hygroflat 80, a one side coated, bleached kraft paper.

The liner is made from FSC® certified paper (FSC Mix Credit, chain-of-custody number: CU-COC-807907, Licence Code: FSC-C004451).

Basis Weight	80 g/m ²	ISO 536
Caliper	81 µm	ISO 534

Laminate

Total Caliper	188 µm±10%	ISO 534
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Performance Data

Initial Tack	10 N/25mm	FTM 9 Glass
Peel Adhesion 90°	9 N/25mm	FTM2 st.st. 24 hrs

Min. Application Temp.	0 °C
Service Temperature	-80 °C to 110 °C

Adhesive Coat Weight	24 g/m ²	FTM12
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

PVC outdoor clear is ideal for many medium-life indoor and outdoor applications. A durability of seven years (vertical exposure, middle European exposure conditions) can be expected. The material is self-extinguishing. Due to the high flexibility of the film, the film is used in cable marking applications.

The hygroflat backing paper is generally suited to the refolding demands of high-speed computer printers, providing optimum layflatness and excellent interfolding characteristics. A decurling bar might be needed for optimal results.

Conversion and Printing

PVC Outdoor Clear features good thermal transfer printability; for good abrasion resistance we recommend the use of resin ribbons. In addition this material can be screen and UV flexo printed. It shows good die cutting performance.

Compliance and Approvals

This product is UL and C-UL recognized (UL 969, CSA C22.2 No. 0.15). The UL file number is MH27538.

AZ793

Fasson®

PVC OUTDOOR CLEAR AL170-HF80 FSC



PVC OUTDOOR CLEAR

AL170

HF80 FSC



The mark of
responsible forestry

This is an automatically generated datasheet. 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

UL and CSA recognition

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. For specific information on approved conditions, see appendix.

Flammability

This material is self-extinguishing to the first measuring mark, according to FMVSS 302.

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	19,5
Aluminum	23,0
Automotive lacquered panels	23,0
Glass	26,0
HDPE	6,0
LDPE	3,8
PA6	20,0
Stainless Steel	22,0

Appendix

Thermal Transfer Printing:

Printability – Physical Resistance

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

Ribbon	Settings speed energy		Print Quality	ANSI Grade	Scratch resistance	Tape resistance
Armor AXR7+	3	20	+	A	++	++
Armor AXR8	3	30	++	B	++	++
Dai Nippon R300	3	30	+	B	++	++
Dai Nippon R510	3	20	+	A	++	++
limak SP330	3	30	++	B	++	++
Ricoh B110Cx	3	10	+	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 APX650	5 "/s	++	A	++	+
Ricoh B120E	7 "/s	++	A	++	-

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+	AXR8	R300	R510	SP330	B110Cx	APX650	B120 E
Ad Blue	+	+	+	+	+	+	+	+
Anti-Freeze	+	+	+	+	+	+	+	+
Biodiesel	+	+	+	+	+	+	-	-
Bioethanol E85	-	+	+	+	+	0	-	-
Brake fluid	+	+	-	+	+	+	-	-
Cleaner solvent	+	+	+	+	+	+	-	-
Engine oil	+	+	+	+	+	+	-	-
Gasoline	-	-	-	+	-	-	-	-
Hard wax polish	+	+	+	+	+	+	-	-
Isopropanol	+	+	+	+	+	+	-	-

+: 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

Compliance Data

UL – Underwriters Laboratories (UL 969, Category PGJI2)

File Number: MH27538, Category PGJI2

This material is UL recognized for indoor and outdoor use where exposed to high humidity or occasional exposure to water.

Application Surface	Max Temp (°C)	Min Temp (°C)
Stainless steel	+80	-40

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 and outdoor use.

The details are listed in the UL file number MH27538, Category PGJI8.

Group	Application Surface	Max. Temperature (°C)
Metals	Bare, plated or enameled steel; bare, anodized or enameled aluminium	+80

The UL and C-UL certification includes the printing with thermal transfer ribbons on preprinted areas of the material. For details please contact your sales representative.

Application on cables and wires

File Number: MH26355

ANSI/UL 817: Cord Sets and Power-Supply Cords and

ANSI/UL 2238: Cable Assemblies and Fittings for Industrial Control and Signal Distribution

Cord Type	Min. diameter	Indoor Use	Outdoor Use	Additional Conditions
UL Style 20276 (Round)	6,8 mm	Yes	Yes	OR
UL Style 2560 (Round)	6,6 mm	Yes	Yes	OR
UL Style 2464 (Round)	4,0 mm	Yes	Yes	OR

OR: Complies with Oil Resistance requirements

The UL certification includes the printing with one or more of the following thermal transfer ribbons: Armor "AXR7+" and DaiNippon "R510", limak "SP-300" and Ricoh "B110CR".

Avery Dennison Materials Group Europe

Willem Einthovenstraat 11
2342 BH Oegstgeest
The Netherlands
+31 (0)85 000 2000



Warranty

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