Avery® Automotive Films

TECHNICAL INFORMATION

Avery® MBK9040
Transparent Permanent Film

Description :

Face film	: 55mic gloss transparent polymeric calendered PVC
Adhesive	: Acrylic, permanent
Backing paper	: Double sided polythene coated paper

Conversion : Avery MBK9040 has excellent die and kiss cutting properties with steel rule die systems and flat bed plotters. MBK9040 can also be screen printed, using high quality vinyl or acrylic based inks common to the screen printing industry.

Features :

Very thin soft face film for good conformability.
Excellent film and adhesive clarity
Layflat, moisture resistant liner.
Excellent dimensional stability for screen printing.
Excellent die and kiss cutting performance
Outdoor durability up to 2 years*.

Applications: Avery MBK9040 has been specially developed for motorbike decoration, nameplates and other decorative trims.

Physical and chemical characteristics

General:

	Test reference	Value
Caliper, facefilm	ISO 534	55 micron
Caliper,facefilm & adhesive	ISO 534	76 micron
Tensile strength	ISO 1184	≥ 19Mpa (MD) ≥ 18Mpa (CD)
Elongation	ISO 1184	> 150% (MD) > 160% (CD)
Dimensional stability	DIN 30646	0.3mm max
Flammability		Self extinguishing
Shelf life	Stored at 22˚C/50-55% RH	1 year
Durability*	Vertical exposure	Up to 2 yrs (unprinted)

Adhesive properties:

Initial	FINAT FTM-1, Stainless steel	> 10 N/25mm
Ultimate	FINAT FTM-1, Stainless steel	> 12 N25mm
in colour, gloss or dimensions		

Thermal:

Application temperature	Minimum +10˚C
Temperature range	-20˚C to + 80˚C

Chemical:

Humidity resistance	120 hours exposure	No effect
Saltspray resistance	120 hours exposure	No effect
Water resistance	48 hours immersion	No effect
Solvent resistance	Applied to aluminium and immersed in:	
	Oil, grease, aliphatic solvent , motor Oil, heptanes, JP-4 fuel	No effect

Important:
Information on physical and chemical characteristics is based upon tests we believe to be reliable. The values listed herein are typical values and are not for use in specifications. They are intended only as a source of information and are given without guarantee and do not constitute a warranty. Purchasers should independently determine, prior to use, the suitability of this material to their specific use.

All technical data subject to change

Warranty:
Avery® materials are manufactured under careful quality control and are warranted to be free from defect in material and workmanship. Any material shown to our satisfaction to be defective at the time of sale will be replaced without charge. Our aggregate liability to the purchaser shall in no circumstances exceed the cost of the defective materials supplied.
No salesman, representative or agent is authorised to give any guarantee, warranty, or make any representation contrary to the foregoing.

All Avery® materials are sold subject to the above conditions, being part of our standard conditions of sale, a copy of which is available on request.

***Durability:**

Durability is based on Asia Pacific exposure conditions. Actual performance life will depend on substrate preparation, exposure conditions and maintenance of the marking. For instance, in the case of signs north in the southern hemisphere or facing south in the northern hemisphere, in areas of long & high temperature exposure such as North Australia and southern European countries, in industrially polluted areas or high altitudes, exterior performance will be decreased.

Test Methods

Dimensional stability:
Is measured on a 150 x 150mm aluminium panel to which a specimen has been applied. 72hrs after application the panel is exposed for 48hrs to 70˚C after which the shrinkage is measured.

Adhesion:
As per FINAT FTM-1, peel adhesion is measured by peeling a specimen at a 180˚ angle from a stainless steel or float glass panel, 24 hrs after the specimen has been applied under standardized conditions, initial adhesion is measured 20mins after application.

Flammability:
A specimen applied to aluminium is subjected to the flame of a gas burner for 15 seconds. The film should self extinguish within 15 seconds after removal from the flame.

Temperature range:
A specimen applied to stainless steel is exposed at high and low temperatures and brought back to room temperature. 1 hour after exposure the soecimen is examined for any deterioration. Note: prolonged exposure to high and low temperatures in the presence of chemicals such as solvents, acids, dyes etc may eventually cause deterioration.

Chemical Resistance:
All chemical tests are conducted with test panels to which a specimen has been applied. 72hrs after application the panels are immersed in the test fluid for the given test period. 1 hour after removing the panel the specimen is examined for any deterioration.

Corrosion resistance:
A specimen applied to aluminium is exposed to saline mist (5% salt) at 35˚C. After exposure the film is removed and the panel is examined for traces of corrosion.