

VisionMark 16894 High Strength Pressure-Sensitive Acrylic Laminating Adhesive

Data Sheet

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I. FEATURES

- VisionMark's high-strength acrylic adhesive bonds to a wide variety of surfaces, including low surface energy plastics.
- 60# densified kraft liner offers excellent die-cutting of metal nameplates.
- Excellent balance of properties.

II. APPLICATIONS

- Metal and plastic graphics applied to smooth or textured plastic surfaces.
- Graphic application to surfaces such as wood, fabric, plastic, rubber and textured materials.

III. PRODUCT CONSTRUCTION

Adhesive	Liner
5.0 mil(127 microns)	3.7 mil (94 microns)
#300 "Hi-Strength"	60# Densified Kraft
Acrylic	Printed

IV PHYSICAL PROPERTIES

Typical values based on testing of three lots; not for specification use.

ASTM D-3330 (modified)	20-Minute Dwell		Ultimate Bond	
90-degree peel, 12"/min. (305mm/min.)	Oz/Inch	N/100mm	Oz/Inch	N/100mm
2-mil aluminum foil to stainless steel	66	71		
ASTM D-3330 (modified)	72-Hour Dwell		Ultimate Bond	
90-degree peel, 12"/min. (305mm/min.)	Oz/Inch	N/100mm	Oz/Inch	N/100mm
2-mil aluminum foil to various surfaces:				
Metal (stainless steel)	98	107	114	125
High Surface Energy Plastic (polycarbonate)	82	90	114	123
Low Surface Energy Plastic (polypropylene)	55	60	61	67

V. ENVIRONMENTAL PERFORMANCE

The properties defined are based on the attachment of impervious faceplate materials, such as aluminum to an aluminum test surface.

Bond Build-up	The bond strength of VisionMark's 16894 acrylic adhesive increases as a function of time and temperature and has very high initial adhesion.
Humidity Resistance	High humidity has minimal effect on adhesive performance. Bond strengths are generally higher after exposure for 7 days at 90 degrees F (32 degrees C) and 90% relative humidity.
UV Resistance	When properly applied, nameplates and decorative trim parts are not adversely affected by exposure.
Water Resistance	Immersion in water has no appreciable effect on the bond strength. After 100 hours at room temperature, the bond actually shows an increase in strength.

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V. ENVIRONMENTAL PERFORMANCE (continued)

The properties defined are based on the attachment of impervious faceplate materials, such as aluminum to an aluminum test surface.

Temperature Cycling Resistance	Bond strength generally increases after cycling four times through: 4 hours at 158 degrees F (70 degrees C) 4 hours at -20 degrees F (-29 degrees C) 16 hours at 73 degrees F (22 degrees C)
Chemical Resistance	When properly applied, nameplates and decorative trim parts will hold securely after exposure to numerous chemicals including oil, mild acids and alkalis.
Heat Resistance	The VisionMark 16894 adhesive is usable for short periods (minutes, hours) at temperatures up to 250 degrees F (121 degrees C) and for intermittent longer periods of time (days, weeks) up to 150 degrees F (66 degrees C).
Shelf Life	The product retains its performance and properties for one year from date to receipt if properly stored at room temperature conditions of 72 degrees F (22 degrees C) and 50% relative humidity. Storage in plastic bag is recommended.

VI. SPECIAL CONSIDERATIONS

- For maximum bond strength the surface should be thoroughly cleaned and dried. Typical cleaning solvents are heptane or isopropyl alcohol. Consult manufacturer's Material Safety Data Sheet for proper handling and storage instructions.
- Bond strength can also be improved with firm application pressure and moderate heat, from 100 degrees F (38 degrees C) to 130 degrees F (54 degrees C), causing the adhesive to develop intimate contact with the bonding surface.