



Laminating Adhesives/Data Page

FOD # 0161

Scotch™ 992 Laminating Adhesive 995 Laminating Adhesive

Product Construction

Product	Adhesive	Liner
992	2.0 mils (50 microns) #300 “Hi-Strength” Acrylic (fibered)	3.2 mils (81 microns) 55# Densified Kraft (white)
995	5.0 mils (127 microns) #300 “Hi-Strength” Acrylic (fibered)	3.2 mils (81 microns) 55# Densified Kraft (white)

Features

- #300 “Hi-Strength” Acrylic Adhesive for excellent bond to low surface energy plastic (e.g. polypropylene).
- 2.0 mil adhesive for smooth to moderately rough surfaces.
- 5.0 mil adhesive for application to very rough surfaces (e.g. castings and fabrics).
- 55# Densified Kraft liner for excellent rotary die-cutting.

Applications

- Performance engineered labels for application to a range of textured surfaces.
- Labels for application to textured paints or plastics housings.
- For use on photographic bar code labels.
- For protected graphics labels on a variety of surfaces.

Physical Properties

(Typical values – not for specification use)

	<u>Product</u>	<u>20 Minute Dwell</u>			
		<u>Oz./In.</u>	<u>N/100 mm</u>		
ASTM D-3330 (modified)	992	42	46		
(90 degree peel, 12"/min. 305 mm/min.)	995	70	77		
2 mil aluminum to stainless steel					
<u>Surface</u>	<u>Product</u>	<u>72 Hr. Dwell</u>		<u>Ultimate Bond</u>	
		<u>Oz./In.</u>	<u>N/100 mm</u>	<u>Oz./In.</u>	<u>N/100 mm</u>
3M Test (90 degree peel 12"/min. 305 mm/min.) 2 mil aluminum to various surface					
– Metal (Stainless Steel)	992	49	54	75	82
	995	98	107	113	124
– High Surface Energy	992	48	53		
Plastic (Polycarbonate)	995	88	96		
– Low Surface Energy	992	39	43		
Plastic (Polypropylene)	995	63	69		

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 “Scotch” #300 “Hi-Strength” 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.
U.V. Resistance:	When properly applied, nameplates and decorative trim parts are not adversely affected by exposure to U.V. light.
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.
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, adhesive backed parts will hold securely after exposure to numerous chemicals including oil, mild acids, and alkalis.
Heat Resistance:	The #300 “Hi-Strength” 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:	Product retains its performance and properties for one year from date of purchase if properly stored at room temperature conditions of 72 degrees F (22 degrees C) and 50% relative humidity.

Special Considerations

For maximum bond strength the surface should be thoroughly cleaned and dried. Typical cleaning solvents are heptane or isopropyl alcohol. Consult solvent 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 bonding surface.

6/26/90

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