

Test Report

tape:

tesa LaserLabel 6973 PV3/PV6 (color black/white – special security product)
 (including information: characters, barcodes)

substrate: steel

Overview of test methods:

Environmental Exposure	Test	Result
<i><u>Outdoor-weathering test</u></i>		
Xenontest	2.000 hours	no changes
Florida test	15 month	no changes
Kalahari test	15 month	no changes
Arizona test	15 month	no changes
Humid conditions	+50°C/95% rel. humidity-20 days	no changes
Sun simulation	15 cycles humidity/15 cycles dry (4 weeks)	no changes
Xenon (UV) Test	3.000 hours (equal to 3-4 years outdoor-weathering)	no changes
Xenon (UV) Test – long term	10.000 hours	no changes
Ultraviolet Light and Water (Wheatherometer)	720 hours / 20 min. UV and 3 min. UV&water	no changes
Heat aging (short term)	90°C circulating air/20 weeks	no changes
Heat aging (short term)	180°C circulating air/19 days	no changes
Heat and Cooling cycles (long term)	150°C and – 40°C (5.000 hours)	no changes
Low temperature	- 30°C / 7 days	no changes

Corrosion long-term test EK4	18 weeks	no influence
Galvanostatic Cathodic Polarization of Coated Panels Electrochemical Corrosion Shorttime Test	5 days	no changes
Shrinkage	240 hours / 23° C and 98% rel. humidity	< 0.05 %
Shrinkage	180°C / 7 days	< 0.1 %
Shrinkage	270°C / 15 min.	< 0.2 %
<u>Condensation water climatic testing</u>		
water climate testing	20 weeks / 23 °C 98% rel. humidity	no changes
water climate testing	20 weeks / 45 °C 98% rel. humidity	no changes
<u>Mechanical testing</u>		
Crockmeter (dry)	2.000	no changes
Crockmeter (with super petrol)	1.000	no changes
Taber Test (10N / dry)	500 strokes	no changes
<u>Chemical resistance testing</u>		
Water immersion	48 hours / 70°C	none
Super petrol	1 hour / 23 °C	none
Sulfuric acid (30%)	1 hour / 23 °C	none
Sodium Hydroxide (1%)	1 hour / 23 °C	none
Toluol	1 hour / 23 °C	none
Motor oil (SAE 20 S)	1 hour / 23 °C	none
Preservative (Wax Henkel)	1 hour / 23 °C	none
Washer Detergent	48 hours / 65°C	none
Dishwater Detergent	48 hours / 23°C	none

Detergent for inside (Sidolin)	1 hour / 23 °C	none
Lubricating Oil	48 hours / 23 °C	none
Cooking Oil	48 hours / 23°C	none
Gasoline Splashing (immersed in gas atmosphere)	1 hour / 23 °C	none
high-pressure cleaner	50 bar, 45° angle to substrate, 1m distance, 40° temperature for 10 minutes substrate: lacquer panel, polypropylene	none
Hot engine oil	120 °C / 4 hours	no changes
Hot engine coolant (50:50: ethylglycol&water)	95°C / 4 hours	no changes
Brake Fluid (DOT 3 or DOT 4)	23 °C / 4 hours	no changes
<u>Other</u>		
flammable test	US 571.302	no flammable

Laser-Label Certifications / Specifications

Institution/Cert-No. tesa Label is certified on (date)
Address

UL MH 18055 (M)

Underwriters Laboratories (6930) 13.09.94, revised 15.3.99
1285 Walt Whitman Road
Melville, New York
11747-3081
USA

BWB Normentwurf VG 95 530

Bundesamt für Wehrtechnik (6930) Sept.1986
und Beschaffung
Postfach 7360
Konrad-Adenauer-Ufer 2-6
Koblenz

KBA Fabrikschild i.S. der StVO

Kraftfahrt-Bundesamt (6930) 10.01.1995

24932 Flensburg

Natec

(6931) 06.11.1996
NATEC Institut GmbH Methode DINV ENV 1186
Behringstr. 154 Grenzwert nach §8
22763 Hamburg Bedarfsgegenstände eingeh.

CSA C22.2 No. 015-95 Part II (6930/6931) 12.02.1996

Canadian Standards Association
178 Rexdale Boulevard
Etobicoke
Ontario
Canada M9W 1R3

DB DBL 8230 (6930)

Daimler Benz

VW TL 52038 C (6930) Freigabe auf lackierter Oberfläche 16.08.1993
(Abschlußbericht)

Volkswagen AG
Forschung & Entwicklung
Wolfsburg

Opel GME 00 008-A1 (6930)

Opel
Technical Development Centre
Europe

BMW N 60045.0 (6930) 13.06.1997

BMW AG
Sparte Labor
Postfach 1120
84130 Dingolfing