

BRADY B-429 THERMAL TRANSFER PRINTABLE SATIN WHITE TAMPER EVIDENT LABEL STOCK

TDS No. B-429
Effective Date: 09/19/2011

Description:

GENERAL

B-429 is a polyolefin film with a permanent rubber pressure sensitive adhesive and a topcoat specifically designed for thermal transfer printing.

APPLICATIONS

B-429 is designed for applications like E-PROM labeling and rating plates that require both high performance and protection against removal.

SPECIAL FEATURES

B-429 is designed to destroy upon removal. A 24 hour dwell time is recommended for ultimate destructibility.

RECOMMENDED RIBBONS

Recommended ribbons are the Brady Ribbons R-7960, R-7961 and R-7962 for optimal print performance.

AGENCY APPROVALS

B-429 is a UL-recognized component and CSA accepted material when printed with Brady series R-7960 and R-7961 ribbons. See UL file MH17388 and CSA Acceptance Record LS 28736 for specific details.

ROHS Environmental Compliance

Brady B-429 is RoHS compliant using EU Directive 2002/95/EC.

Details:

PHYSICAL PROPERTIES	TEST METHOD	AVERAGE RESULTS
Thickness	ASTM D 1000 - Substrate - Adhesive - Total	0.055 mm (0.00220 inch) 0.020 mm (0.00078 inch) 0.075 mm (0.00300 inch)
Adhesion to: - Stainless Steel	ASTM D 1000 - 20 min. dwell - 40 min. dwell	Material self-destructs upon removal
Drop Shear	PSTC-7	Material self-destructs upon removal
Tack	ASTM D 2979 Polyken™ Probe Tack (1 sec dwell, 1 cm/sec separation)	625 g (22 oz)
Abrasion Resistance	Method 5306 of US Federal Test Method Std. No. 191A 100 Cycles R-7960 (CS 10, 250g/arm) (CS 10, 500g/arm) R-7961 (CS 10, 250g/arm) (CS 10, 500g/arm) R-7962 (CS 10, 250g/arm) (CS 10, 500g/arm)	Moderate Fading (still legible) Severe Fading (still legible) Slight Fading (still legible) Moderate Fading (still legible) Slight Fading (still legible) Moderate Fading (still legible)

Performance properties tested on B-429 printed with Ribbons R-7960, R-7961 and R-7962 using the BradyPrinter™ THT Model 300 X thermal transfer printer. Printed samples were laminated to aluminium and allowed to dwell 24 hours before exposure to the indicated environments. Unless noted, results are the same for both ribbons

PERFORMANCE PROPERTIES	TEST METHOD	TYPICAL RESULTS

High Service Temperature	30 days at 80° C (176° F)	N.V.E.*
Low Service Temperature	30 days at -40° C (-40° F)	N.V.E.
Application Temperature	Lowest application temperature to stainless steel	10°C (32°F)
Humidity Resistance	30 days in humidity chamber at 37° C and 95% R.H.	N.V.E.
U.V. Resistance	30 days in U.V. light chamber	N.V.E.
Weatherability**	30 days QUV (ASTM G-53)	Slight discoloration of the material and moderate discoloration of the printing.

* No Visible Effect

** B-429 is not recommended for longterm outdoor use.

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE
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Samples printed with Ribbons R-7960, R-7961 and R-7962 using a BradyPrinter™ Model 300 X thermal transfer printer. Samples laminated to aluminium panels and allowed to dwell 24 hours prior to testing. Test conducted at room temperature. Testing consisted of 5 cycles of 10 minute immersions in the specified test fluid followed by a 30 minute recovery period. After final immersion, samples rubbed 10 times with cotton swab saturated with test fluid.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE			
	EFFECT TO LABEL STOCK	R-7960	R-7961	R-7962
Isopropanol	No visible effect	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, text is gone after rub
Aceton	No visible effect	Slight fading w/o rub, severe fading after rub	Slight fading w/o rub, severe fading after rub	Slight fading w/o rub, severe fading after rub
Methyl Ethyl Ketone	Slight adhesive ooze	Moderate fading w/o rub, text is gone after rub	Severe fading w/o rub, severe fading after rub	Severe fading w/o rub, text is gone after rub
Ethanol	No visible effect	No visible effect w/o rub, no visible effect after rub	Slight fading w/o rub, severe fading after rub	Slight fading w/o rub, severe fading after rub
Toluene	Severe adhesive ooze	Severe fading w/o rub, no rub test was done because the material was completely destroyed by Toluene	Severe fading w/o rub, no rub test was done because the material was completely destroyed by Toluene	Severe fading w/o rub, no rub test was done because the material was completely destroyed by Toluene
Alcohol Mixture	No visible effect	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, moderate fading with rub
n-Hexane	Slight adhesive ooze	No visible effect w/o rub, severe fading after rub	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub
Iso-octane	No visible effect	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub
Diesel	No visible effect	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub
Ethylacetylacetate	No visible effect	No visible effect w/o rub, text is gone after rub	No visible effect w/o rub, text is gone after rub	No visible effect w/o rub, text is gone after rub
1,1,1- Trichloroethane	Severe adhesive ooze	Severe fading w/o rub, severe fading after rub	No visible effect w/o rub, severe fading after rub	No visible effect w/o rub, no visible effect after rub
Sodium Hydroxide (10%)	No visible effect	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub
Sodium Chloride (10%)	No visible effect	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub
Sulphuric Acid (10%)	No visible effect	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub
Skydrol® 500 B 4	No visible effect	Severe fading w/o rub, severe fading after rub	Severe fading w/o rub, severe fading after rub	Severe fading w/o rub, severe fading after rub
Mineral Oil	No visible effect	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub
Water	No visible effect	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub	No visible effect w/o rub, no visible effect after rub

Product testing, customer feedback, and history of similar products, support a customer performance expectation of at least **two years from the date of receipt** for this product as long as this product is stored in its original packaging in an

environment *below 80°F (27°C) and 60% RH* . We are confident that our product will perform well beyond this time frame. However, it remains the responsibility of the user to assess the risk of using such product. We encourage customers to develop functional testing protocols that will qualify a product's fitness for use in their actual applications.

Trademarks:

BradyPrinter™ is a trademark of Brady Worldwide, Inc.
Polyken™ is a trademark of Testing Machines Inc.
Skydrol® is a registered trademark of the Monsanto Company
ASTM: American Society for Testing and Materials (U.S.A.)
CSA: Canadian Standards Association
Fed. Spec.: United States Federal Specification (U.S.A.)
PSTC: Pressure Sensitive Tape Council (U.S.A.)
UL: Underwriters Laboratories Inc. (U.S.A.)

Note: All values shown are averages and should not be used for specification purposes. Test data and test results contained in this document are for general information only and shall not be relied upon by Brady customers for designs and specifications, or be relied on as meeting specified performance criteria. Customers desiring to develop specifications or performance criteria for specific product applications should contact Brady for further information.

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