Technical Data Sheet

BRADY B-933 VINYL

TDS No. B-933
Effective Date: 11/29/2011

Description:
Brady B-933 is a flexible film with a pressure sensitive adhesive.

Details:
Use:
QUIK-ALIGN® Numbers and Letters and INSTALIGN® Numbers and Letters.

Adhesive Type:
Pressure sensitive acrylic

Substrate Type:
Vinyl film

Standard Material Colors:
White, black, yellow

Thickness (PSTC-33):
Total: 0.005 in. (0.125 mm)
Substrate: 0.004 in. (0.1 mm)
Adhesive: 0.001 in. (0.025 mm)

Tensile Strength (PSTC-31):
14 lb/in. (250 N/100mm)

Elongation (PSTC-31):
120%

Adhesive Properties:
Adhesion to Steel (PSTC-1)
15 Minute Dwell (Avg.) -- 55 oz/in. (60 N/100mm)
Ultimate Dwell (72 Hrs.) (Avg.) -- 100 oz/in. (109 N/100mm)
Tack (ASTM D 2979) (Avg.) -- 400 g (4 N)
Drop Shear (PSTC-7) (Avg.) -- 24 hrs.

Abrasion Resistance (Method 5306 of U.S. Federal Test Method Std. No. 191A):
CS-17 wheels, 1000 g wts.
Substrate withstood up to 4000 cycles

Gloss:
6 Gardner units

Minimum Application Temperature:
50°F (10°C)

Service Temperature:
-40°F to 200°F (-40°C to 93°C)

Average Outdoor Durability:
2-4 years (Average expected outdoor life of product will depend on user definition of failure and climatic conditions.)

Chemical Resistance:

REAGENT	7 DAY IMMERSION	DIP TEST
30% Sulfuric Acid	NE	NE
10% Sulfuric Acid	NE	NE
30% HCl	NE	NE
10% HCl	NE	NE
50% NaOH	NE	NE

10% NaOH	NE	NE
Methyl Ethyl Ketone	F	F
Acetone	F	F
1,1,1-Trichloroethane	F	F
Methanol	NE	NE
IPA (Isopropanol)	F	NE
ASTM #3 Oil	NE	NE
SAE 20 Oil	NE	NE
Alconox®	NE	NE
Toluene	F	F
Mineral Spirits	NE	NE
Glacial Acetic Acid	F	F
5% Acetic Acid	NE	NE
Diesel Fuel	F	NE
Heptane	F	NE
Cellosolve Acetate	F	F
Conc. Ammonia	NE	NE
10% Ammonia	NE	NE
Turpentine	F	NE
Kerosene	NE	NE
Water	NE	NE
Gasoline	F	NE

NE = No Effect
NT = Not Tested
F = Failed (affected Sample)

7 Day Immersion: Immersed in reagent for 7 days.
Dip Test: Five 10 minute dips in reagent with 30 minute recovery.

Shelf Life:
Product testing, customer feedback, and history of similar products support a customer performance expectation of at least ***two years from the 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 application.

Trademarks:
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INSTALIGN® is a registered trademark of Brady Worldwide, Inc.
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ASTM: American Society for Testing and Materials (U.S.A.)
PSTC: Pressure Sensitive Tape Council (U.S.A.)
SAE: Society of Automotive Engineers (U.S.A.)
All S.I. Units (metric) are mathematically derived from the U.S. Conventional Units.

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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Brady North America | 6555 W. Good Hope Rd | Milwaukee, WI 53223 | USA | Tel: 414-358-6600 | Fax: 800-292-2289