

**BRADY B-390 THERMAL TRANSFER PRINTABLE WIRE MARKING INSERT & BRADY WIRE MARKING CARRIERS**

TDS No. B-390  
Effective Date: 06/11/2009

**Description:**

Brady B-390 Inserts are printable, rigid inserts designed to be printed and affixed to a wire using extruded, clear PVC Brady Wire Marking Carriers.

Brady B-390 inserts are supplied roll form formatted for thermal transfer printing on the TLS 2200™ Thermal Labeling System and benchtop printers.

The TLS 2200® printer requires the Brady Series R6000 high performance ribbon. The benchtop printers require the Brady Series R6000 or R6200 high performance ribbons.

B-390 is supplied in a custom height and two widths which are compatible with carriers. The available widths are 15 mm and 30 mm. Brady Wire Marking Carriers are supplied cut to length. Available lengths include 15 mm and 30 mm. Carrier sizes are for marking wires from 1.3 mm to 16.0 mm in diameter (OD).

Exposing the inserts to UV light for an extended period of time will embrittle the product. B-390 is designed for one time use only.

Brady B-390 meets the requirements of a halogen-free material per DIN VDE 0472 part 815. (Statement based on review of product construction and confirmatory halogen content test run at an independent test laboratory. Statement excludes PVC Wire Marking Carriers.)

Brady B-390 is RoHS compliant to 2005/618/EC MCV amendment to RoHS Directive 2002/95/EC.

**Details:**

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS B-390 R6000	TYPICAL RESULTS B-390 R6200	TYPICAL RESULTS CARRIER
High Service Temperature	1000 hrs at 212°F (100°C)	No visible effect	No visible effect	Slight discoloration
Low Service Temperature	1000 hrs at -40°F (-40°C)	No visible effect	No visible effect	No visible effect
Humidity Resistance	1000 hrs at 100°F (37°C), 95% R.H.	No visible effect	No visible effect	No visible effect
UV Light Resistance	1000 hrs in UV Sunlighter™ 100	No visible effect	No visible effect	Slight discoloration
Weatherability	ASTM G155, Cycle 1 1000 hrs in Xenon Arc Weatherometer	Insert became brittle, no visible effect to print	Insert became brittle, slight print fade	Slight discoloration
Marking Permanence MIL-M-81531 20 erasure rubs	20 eraser rubs with hard hand pressure	Slight print removal	Slight print removal	Not applicable
<b>PERFORMANCE PROPERTY</b>		<b>CHEMICAL RESISTANCE</b>		

Samples were printed with Series R6000 and R6200 ribbons and dwelled 24 hours prior to test. Testing consisted of 5 cycles of 10 minute immersions in the specified chemicals followed by 30 minute recovery periods. After the final immersion, the samples were rubbed with cotton swabs. Testing was conducted with inserts outside of carriers at room temperature; results are improved when samples are tested after inserting into carriers. Carrier results are from tests without the inserts.

CHEMICAL REAGENT	R6000		APPEARANCE OF CARRIER
	APPEARANCE OF INSERT AND PRINT WITHOUT RUB	APPEARANCE OF INSERT AND PRINT WITH RUB	
Methyl Ethyl Ketone	No visible effect	Moderate print removal	Completely destroyed
1,1,1-Trichloroethane	No visible effect	Moderate print removal	Carrier hardened

Alcohol Mix*	No visible effect	No visible effect	No visible effect
Mineral Spirits	No visible effect	No visible effect	No visible effect
JP-8 Jet Fuel	No visible effect	No visible effect	No visible effect
SAE 20 WT Oil	No visible effect	No visible effect	No visible effect
ASTM #3 Oil	No visible effect	No visible effect	Carrier tinted yellow
Mil 5606 Oil	Insert tinted pink	No visible effect	Carrier tinted pink
Mil 7808 Oil	Insert tinted tan	No visible effect	Carrier tinted brown
Thread Ezy®	No visible effect	No visible effect	Carrier tinted brown
Skydrol® 500B-4	No visible effect	Moderate print removal	Carrier tinted purple and severely deformed
Super Agitene®	No visible effect	No visible effect	Carrier tinted green
Gasoline	No visible effect	Moderate print removal	Carrier tinted yellow
CFC Free-Electro Wash 2000	No visible effect	Slight print removal	Carriers hardened
Deionized Water	No visible effect	No visible effect	No visible effect
3% Alconox® Detergent	No visible effect	No visible effect	No visible effect
10% Sulfuric Acid Solution	No visible effect	No visible effect	No visible effect
5% Salt Water Solution	No visible effect	No visible effect	No visible effect

<b>R6200</b>			
<b>CHEMICAL REAGENT</b>	<b>APPEARANCE OF INSERT AND PRINT WITHOUT RUB</b>	<b>APPEARANCE OF INSERT AND PRINT WITH RUB</b>	<b>APPEARANCE OF CARRIER</b>
Methyl Ethyl Ketone	Moderate print removal	Complete print removal	Completely destroyed
1,1,1-Trichloroethane	Slight print removal	Complete print removal	Carrier hardened
Alcohol Mix*	No visible effect	No visible effect	No visible effect
Mineral Spirits	No visible effect	Complete print removal	No visible effect
JP-8 Jet Fuel	No visible effect	Moderate print removal	No visible effect
SAE 20 WT Oil	No visible effect	No visible effect	No visible effect
ASTM #3 Oil	No visible effect	No visible effect	Carrier tinted yellow
Mil 5606 Oil	Insert tinted pink	Moderate print removal	Carrier tinted pink
Mil 7808 Oil	Insert tinted tan	Slight print removal	Carrier tinted brown
Thread Ezy®	No visible effect	No visible effect	Carrier tinted brown
Skydrol® 500B-4	Moderate print removal	Complete print removal	Carrier tinted purple and severely deformed
Super Agitene®	No visible effect	Complete print removal	Carrier tinted green
Gasoline	Slight print removal	Complete print removal	Carrier tinted yellow
CFC Free-Electro Wash 2000	No visible effect	Complete print removal	Carriers hardened
Deionized Water	No visible effect	Slight print removal	No visible effect
3% Alconox® Detergent	No visible effect	Moderate print removal	No visible effect
10% Sulfuric Acid Solution	No visible effect	No visible effect	No visible effect
5% Salt Water Solution	No visible effect	Slight print removal	No visible effect

\* Alcohol Mix is 50% ethanol, 30% methanol, and 20% water by volume.

<b>PERFORMANCE PROPERTY</b>	<b>TEST METHOD</b>
Chemical Resistance< /font>	MIL-STD-202F, Notice 12, Method 215J

Labels printed with alphanumerics. Samples subjected to 3 cycles of 3 minute immersions immediately followed by a toothbrush rub after each immersion.

<b>TEST FLUID</b>	<b>TYPICAL RESULTS R6000</b>	<b>TYPICAL RESULTS R6200</b>
Solvent A 1 part IPA, 3 parts Mineral Spirits	No visible effect	Complete print removal
Solvent B 1,1,1-Trichloroethane	Solvent deleted per Notice 12	Solvent deleted per Notice 12
Solvent C Terpene Defluxer	Slight print removal	Complete print removal
Solvent D Saponifier at 63°-70°C	No visible effect	Moderate print removal

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 degrees F (27 degrees 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.*

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Sunlighter™ is a trademark of the Test Lab Apparatus Company  
Super Agitene® is a registered trademark of Graymills Corporation  
Thread Ezy® is a registered trademark of the Toledo-Bever Tools Company.  
TLS2200® is a trademark of Brady Worldwide, Inc.  
ASTM: American Society for Testing and Materials (U.S.A.)  
SAE: Society of Automotive Engineers (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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Brady North America | 6555 W. Good Hope Rd | Milwaukee, WI 53223 | USA | Tel: 414-358-6600 | Fax: 800-292-2289