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## ZeroNine Features

- High Quality
- 66+ Colors
- Outdoor Reliability
- Low Costs
- Customer Service
- Shipping Options
- Volume Discounts
- Unconditional Guarantee



# ZeroNine Ribbon Data Sheet

ZeroNine ribbons are designed for print production on vinyl graphics capable of withstanding severe weather and handling conditions in both commercial and industrial applications.

Spot and Process Color Ribbons were formulated for and tested on 3M Scotchcal Vinyls. Other types of vinyls may be used but may not have the same performance level as shown in this specification chart.

AGENT	DURATION	METHOD	RESULT
Scratch/Mar	10 Passes	10H Lead Drafting Pencil	No Effect
Abrasion	25 Cycles	Taber Abraser CS10 Wheel /250 gms weight	Minimal
Smudge & Smear	20 Passes	Vigorous Rubbing with Abrasive Tissue	No Effect
Tape Pull Adhesion	N/A	Medium Tack Tape	No Effect
Accelerated Light Exposure	3000 Hours (5 Years)	QUV-A	No Effect
Temperature	per Spec. GM6073	Thermal Cycling	No Cracking, Adhesion or Color Loss
High Pressure Spray	per Spec. GM 95310P	High Pressure Wand Car Wash Spray	No Effect
Windshield Washer Spray	10 Minutes	Exposure-then Wiped Dry	No Effect
Auto Wax	10 Minutes	Exposure-then Wiped Dry	No Effect
Non Acid Dish Detergent & Water	10 Minutes	Exposure-then Wiped Dry	No Effect
Motor Oil	10 Minutes	SAE 30 Exposure then Wiped Dry	No Effect
Odorless Mineral Spirits	10 Minutes	Exposure-then Wiped Dry	No Effect
50% Ethylene	10 Minutes	Exposure-then Wiped Dry	No Effect
10% Battery Acid	10 Minutes	Exposure-then Wiped Dry	No Effect
Methanol	10 Minutes	Exposure-then Wiped Dry	No Effect

### PRODUCT DESCRIPTION

Zeronine ribbon is 4.5 microns thick. Most printheads are set to print a standard 6 micron ribbon, therefore we recommend a cooler printhead setting. Problems in print performance occur with too much heat. The ribbon will overheat and stretch causing misprints and diagonal stretch lines. This is most noticeable when printing solid areas of one color down one edge of vinyl. To learn how to reduce your printhead setting refer to our instruction sheet titled "Changing your Printhead Setting".

### PRODUCT SPECIFICATION

Ink: Pigmented resin  
Carrier thickness: Polyester 4.5 micron  
Use: Indoor and outdoor vinyl application

### PRINT QUALITY TESTS

Static cling vinyl reacts differently when being printed. Test the color ribbons to be used, or verify if the color is recommended for use on static cling prior to use. Refer to the footnote information on the price list, or call Zeronine for the latest information. Some colors are not designed to print on static cling.

### PRINT QUALITY EXPECTATIONS

Spot and Process Color Ribbons are only warranted when processes and materials are adhered to in this specification. When specifications are adhered to, as stated in this document, expected performance life is 3-5 years depending on the life expectancy of the vinyl. A significant decrease in performance life may be experienced when the vinyl graphic is applied to a surface other than vertical. Continuous exposure to hot, desert type regions may decrease expected performance life. The life expectancy of the base vinyl on which the Zeronine Ribbon is printed will dictate the performance of the print image.

### APPLICATION METHOD

Print graphics should cure for twenty minutes before application of transfer tape to the printed surface. Medium tack transfer tape is recommended. Pre-masked graphics should be stored in cool, dry conditions and out of direct sunlight.

### PROTECTION

Vehicle graphics should be protected from unknown chemicals in car washes and garage cleaning services. Use a clear protector before final application to vehicle. Chemicals such as alcohol & gasoline may harm the print colors. Clear protectors such as Frogskin will prolong the life of any printed graphic. Call Zeronine for product recommendations.

### CLEAN UP

After application of vinyl graphics, it is recommended to clean up with a non-acidic soap and warm water using a soft cloth or sponge. Do not use alcohol or solvent based cleaners.

### PRINTED GRAPHIC STORAGE

Printed graphics should not be stored print side to print side. Undue pressure will create a wetting effect and damage your graphic. Place a slip sheet between each printed graphic, craft paper is recommended.

### SHELF LIFE AND STORAGE

Ribbons may be stored by the user for a period of 1 year. Ribbons must be stored in a clean area, free from excessive moisture and should be stored within 40-60% relative humidity, out of direct sunlight. Ambient temperatures should be below 38°C or 100°F. Keep ribbons in the protective tube when not in use.