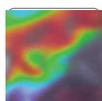


## Hologram Specialty Resin

### Product Description

DNP's next generation hologram resin ribbon is designed to offer a distinctive finish to decorative applications as well as a covert security component to product or brand applications. DNP's hologram ribbon has been reformulated to print on a wider range of substrates at a more cost-effective price. In addition to its optical properties, this ribbon provides extreme durability and solvent resistance for applications exposed to harsh environments.

### Standard Patterns



Rainbow



Large dot

### Recommended Applications



Automotive



Chemicals



Electronics



Inventory & Logistics



Outdoor



Pharmaceutical

### Recommended Substrates

Paper

Economy Synthetics

Special label material

Coated/glossy papers

Pre treated polyester

Synthetic papers

Nylon

PVC cards

### About secure printing technology

In 2015, the value of counterfeit goods is expected to globally exceed 1500 Billion Euros. That's over 2% of the world's total current economic output, and it affects not only luxury goods, but more and more industries (automotive, aerospace, pharmaceutical, etc), as well as cultural events (ticketing) and goods (CD's, DVD's, etc). DNP has developed the hologram ribbon to provide an additional layer of security for brand protection, authentication and identification.

DNP's line of thermal transfer ribbons includes the hologram ribbon to provide security features previously unavailable using thermal transfer printing technology.

DNP's Secure Printing Technology is designed to service a broader base of manufacturers seeking a relatively inexpensive, on-demand, variable printing process.



for more info!

## Hologram Specialty Resin

### Ribbon Properties

Description	Result	Test Method
Ink	Resin	
Color	Metallic silver	Visual
Total Thickness	7.4 ± 0.8µ	Micrometer
Base Film Thickness	6.0 ± 0.4µ	Micrometer
Ink Thickness	1.3 ± 0.5 g/m	
Ink Melting Point	80°C (176°F)	Differential Scanning Calorimeter

### Durability of Printed Image

PERFORMANCE OF PRINTED IMAGE		
DESCRIPTION	TECHNICAL SPECIFICATIONS	
Tested Substrate	FLEXcon21940, PET, and nylon label	
Test Method	Taber Abraser test per PDWI No. 2	
Abrasion Resistance Test	100 cycles of 500g covered CS-10 Wheel	
Solvent Resistance Test	WATER	100 cycles of 500g covered with cloth*
	IPA	100 cycles of 500g covered with cloth*
	BRAKE FLUID	100 cycles of 548g covered with cloth*
Heat Resistance	<100°C (< 212°F)	
Print Speed	2 to 6 IPS	

\*Highest number of cycles where ANSI grade A can still be scanned.

### Conversion Chart

Millimeters (mm) to Inches = mm ÷ 25.4	Inches to Millimeters (mm) = Inches ÷ 0.03937
Meters (m) to Feet (ft) = m ÷ 0.3048	Feet (ft) to Meters (m) = Feet ÷ 3.2808
C° to F° = (1.8 X C°) + 32 = F°	F° to C° = (F° ÷ 1.8) - 17.77
Thousand square inches (MSI) to m <sup>2</sup> = MSI X 0.645	MSI = m <sup>2</sup> ÷ 0.645



The information on this data sheet was obtained in DNP laboratories. Measured values may vary slightly when tested in a different environment. Information contained within this document is subject to change without notification.