

# DNP TR3021, 22, 23



## Thermal Transfer Ribbon Technical Data Sheet

### TR3021, 22, 23 General Purpose Wax Red Blue Green

#### Product Description

Based on DNP's proven wax technology, these quality ribbons expand your color possibilities while providing excellent print clarity and high smudge resistance when black just isn't enough. These ribbons are also specially formulated with DNP's backcoat technology for printhead protection.



TR3021 Red  
PMS 1787C



TR3022 Blue  
PMS 286C



TR3023 Green  
PMS 3405C

Colors may vary by substrate  
PMS = Pantone Matching System

#### Recommended Applications



COLOR



GENERAL



HORTICULTURE



INVENTORY



OUTDOOR



PARTS  
PACKAGING



PRODUCT ID



RETAIL



SHELF



SIGNAGE

#### Recommended Substrates

Coated/uncoated paper & tag stocks, synthetic paper, polyethylene, polypropylene, top-coated vinyl, polyolefin, Tyvek®, Tyvek Brillion®

#### Performance Characteristics

- Halogen-Free (TR3022 - Blue)
- Provides excellent print clarity and is highly smudge resistant
- Prints at high speeds (12 IPS) delivering crisp, rotated bar codes
- Features DNP's SmoothCoat® backcoat
- Unbeatable edge definition for dark, dense images and improved scan rates

Visit us at [www.dnpribbons.com](http://www.dnpribbons.com)

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#### Ribbon Properties

Description	Result	Test Method
Ink	Wax	
Color	Red, Blue, Green	Visual
Total Thickness	8.4 ± 0.5μ	Micrometer
Base Film Thickness	4.8 ± 0.3μ	Micrometer
Ink Thickness	3.6 ± 0.2μ	Micrometer
Ink Melting Point	72°C (162°F)	Differential Scanning Calorimeter

#### Density of Printed Image

Label Stock: Coated Paper

Print Speed: 6 IPS

Description	Result			Test Method
	Y	M	C	
Print Density - Red	0.84 - 1.18	1.24 - 1.90	0.01 - 0.26	Densitometer
Print Density - Blue	0.08 - 0.56	0.85 - 1.57	1.18 - 1.94	Densitometer
Print Density - Green	0.63 - 1.41	0.28 - 0.50	1.47 - 2.15	Densitometer

#### 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.*

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