

Computype RFID Tire Label



TBX-170-0015-U

Product Description

This manually-applied blank label construction is designed for use in pre-cure tire applications that will utilize RFID as the primary unique identification technology for production work-in-process tracking.

The high temperature materials are resistant to water, mild acids, most petroleum-based greases, oils, lower aliphatic solvents, salts and alkalis. The adhesive system has been designed to provide excellent adhesion to the green tire during the production process and has a specially formulated chemistry resulting in a permanent bond to the tire during the vulcanization process and throughout the rated life of the tire.

Environmental

Application:	Agricultural, OTR, Heavy Construction Tire
Chemical resistance:	Oils and release agents used in tire vulcanization
Operating temperature:	-20° C to +176° C
Storage temperature:	20° C to 25° C
Application temperature:	0 to 40° C
Vulcanization temperature:	176 ^o C for 20 minutes
Vulcanization pressure:	34 bar for 20 minutes
Shelf life:	1 year from the date of manufacture
Read life:	10 years
Bending diameter:	> 50 mm, tension < 10 N
Static pressure:	< 10 MPa

Mechanical

Antenna length:	41 +/- 0.2 mm
Antenna width:	15 +/- 0.2 mm
Antenna to edge:	12 +/- 1 mm
Label length:	45 mm
Label width:	19 mm
Label maximum thickness:	350 µ
Pitch:	22.8 +/- 0.2 mm, wide-edge leading
Web width:	23 +/- 1 mm
Core diameter:	76 mm
Adhesive system:	Rubber Based Pressure Sensitive Adhesive
Liner material:	Paper
Face stock:	White Opaque Polyethylene Terephthalate (PET) Film
Automation:	Designed for manual application

PROTOTYPE



RFID

Supported Protocol:	EPC Global C1 Gen 2 and ISO 18000-6C
Operating Frequency:	840 – 960 MHz
Integrated Circuit Chip:	Impinj Monza 5
Antenna material:	Aluminum
Yield:	94%
Read Range:	0.5 - 2.0 m
EPC memory:	128 bits
TID:	32 bits model number and 48 bits serialized number
Access Password:	32 bits
Kill Password:	32 bits
Data storage life:	> 10 years
Rewrite:	100,000 times

Layout (all dimensions in mm)



Disclaimer:

All technical information and recommendations are subject to final acceptance testing on customer tire building equipment and does not constitute a guarantee or warranty. Suitability for specific applications is the responsibility of the tire manufacturer. Computype products, services and solutions are created using a collaborative innovation process that depends on access to customer application and usage information. Computype reserves the right to change materials without notice.

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