Avery Dennison Smartrac Product Data Sheet



# AD Astro U9 Pure 95<sup>™</sup> NEL

### Overview

Frequency Band UHF 860 - 960 MHz

IC Attachment Technology Strap Attach

Chip

NXP UCODE 9

Antenna Dimensions
19 x 53 mm / 0.75 x 2.09 in

International Standard ISO/IEC 18000-63 Type C

**Industry Segments**Apparel
General Retail

**Applications** 

Supply Chain Management Inventory and Logistics

RoHS

EU Directive 2011/65/EU and Directive (EU) 2015/863

REACH

Regulation (EC) No. 1907/2006

End of Life

EU Paper recyclability: PTS-RH021:97/2012 US Paper Recyclability: SBS-E Part I (Repulpability) and Part II (Recyclability)



## Ideal for a wide range of items in retail and beyond

AD Astro U9 Pure 95<sup>TM</sup> NEL inlays from Avery Dennison are designed for tagging a broad range of retail items, particularly apparel, including fabrics with metallic fiber. They are also well suited for applications related to supply chain, inventory and logistics. Delivery formats include wet inlays and pressure sensitive labels.

#### Sustainability

AD Astro U9 Pure 95™ is produced via innovative antenna manufacturing technology where the aluminum antenna is made with pure aluminum, replacing the PET aluminum laminate traditionally used in standard antenna production. By eliminating the plastic-based layer, the total inlay construction is up to 95% plastic-free in both wet inlay and label formats. A minimal amount of plastic strap is used for the memory chip attachment. According to an LCA (Life Cycle Analysis) study by an independent institute the innovative manufacturing technology provides typically 70-90% savings in carbon footprint compared to traditional etching methods.

The manufacturing process also enables recycling excess materials and reducing the total amount of materials while maintaining the overall performance of the product. The impact of the Pure 95<sup>TM</sup> paper-based inlays and tags in cardboard recycling has been verified by a third-party laboratory in the EU against PTS-RH 021:97/2012. In the US, the hangtag construction is certified by West Michigan University against SBS-E Part I (repulpability) and Part II (recyclability). How2Recycle® has "pre-qualified\*" the RFID construction when applied to a paper hangtag and determined that the structure is eligible for a widely recyclable label.

#### Quality

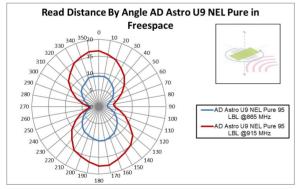
Avery Dennison inlays and tags are compliant with ISO 9001:2015 Quality Management and ISO 14001:2015 Environmental Management, which ensure a reliable and state-of-the-art product that meets a variety of application needs, especially in the retail environment.



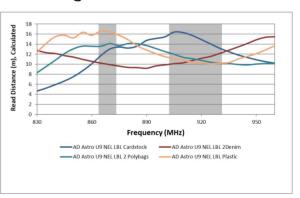
### Technical features

Chip	NXP UCODE 9			
EPC and User Memory	96-bit and n/a			
TID Memory	96-bit / 48-bit unique serial number			
Product Code	IL-610744	IL-610745		
Delivery Format	Wet inlay	Label		
Die-Cut Dimension	22 x 56 mm / 0.87 x 2.2 in	22 x 56 mm / 0.87 x 2.2 in		
Inlay Substrate	40# Paper	40# Paper		
Face Sheet	-	TT2C		
Total Thickness	12.5 - 14.5 mils / 317 - 368 microns	16 - 18 mils / 406 - 457 microns		
Standard Pitch	63.5 mm / 2.5 in	63.5 mm / 2.5 in		
Web Width	31.75 mm / 1.25 in	31.75 mm / 1.25 in		
Core Size	76 mm / 3 in	76 mm / 3 in		
Inlays per Roll	2,200 pcs/reel	1,800 pcs/reel		
Size of Roll	13 in MAX OD	8 in MAX OD		
Operating Temperature	-40 °C to 85 °C / -40 °F to 18	-40 °C to 85 °C / -40 °F to 185 °F		
On-Metal	Non metal			
Certificates	ARC Specification Guide			

# Orientation sensitivity



# Read range



All graphs are indicative: performance in real life applications may vary.

### **Contact information** rfid.averydennison.com/contact

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Warranty: Please refer to Avery Dennison standard terms and conditions: rfid.averydennison.com/termsandconditions

Care and handling: RFID inlays are sensitive to ESD. Observe standard industry practices relating to electronics / RFID to keep environmental impact and static charge to a minimum.



Applications: This product should be tested by the customer / user thoroughly under end use conditions to ensure the product meets the particular requirements. Avery Dennison does not represent that this product is fit for any particular purpose or use. Avery Dennison reserves the right to modify, change, supplement or discontinue product offerings at any time without notice. The information contained herein is believed to be reliable but Avery Dennison makes no representation concerning the accuracy or correctness of the data.