

# AD Spiral U9 IML



## RFID In-Mold Label (IML) – Solution for Reusable Plastic items in Food Sector

AD Spiral U9 IML is a durable and versatile RFID in-mold label designed to meet the needs of various industrial and commercial applications, particularly in the food and beverage and HoReCa sectors (Hotels, Restaurants, Catering).

Engineered to withstand the rigorous injection molding process, this semi-rigid label is compatible with materials like Polypropylene (PP) and delivers long-lasting performance across a wide temperature range. It supports sustainability initiatives by enabling the serialization and reuse of plastic items such as cups, trays, and tableware, offering unique digital IDs that track items throughout their lifecycle for enhanced traceability and management.

Ideal for seamless reuse systems in large venues like sporting events, concerts, and theme parks, as well as restaurants and catering services, the AD Spiral U9 IML facilitates easy deposit payments, reusable item tracking, and cycle counting. It supports operational needs such as washing durability, hygiene assurance, refill management, and fraud prevention by securely integrating into products to prevent tampering. This in-mold label streamlines logistics, reduces labor costs through efficient inventory management, and enhances customer experience by simplifying returns and encouraging participation in reuse programs.



### Overview

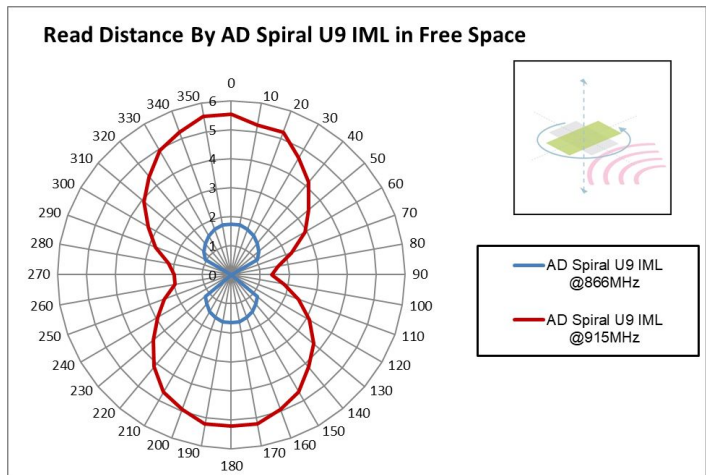
Frequency Band	UHF 860 - 960 MHz
Chip / Chip Attachment Technology	NXP UCODE 9 / Direct Chip Attach
Antenna Dimensions	Ø 24.8 mm / 0.976 in
International Standard	ISO 18000-63, EPC Class 1 Gen 2
Food Compliance	Food Compliant according to Article 3(5) of Regulation (EU) 10/2011, as amended by Regulation (EU) 2025/351
Industry Segments	Food
Applications	Reusable plastic items Unique digital ID for identifying items
RoHS	EU Directive 2011/65/EU and Directive (EU) 2015/863
REACH	Regulation (EC) No. 1907/2006

Technical features

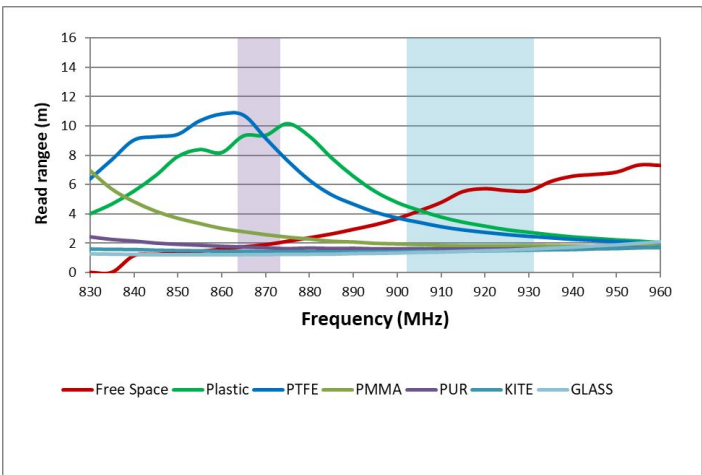
Chip / Chip Attachment Technology	NXP UCODE 9 / Direct chip attach (DCA)
EPC and User Memory	96-bit and n/a
TID Memory	96-bit / 48-bit unique serial number
Product Code	IL-612013
Delivery Format	Die cutted and stacked
Die-Cut Dimensions	Ø 34 mm / 1.34 in
Die-Cut Radius	NA
Inlay Substrate	PET
Face Sheet	Clear PP
Adhesive	NA
Total Thickness (over chip and release liner)	11.81 mils / 300 microns
Standard Pitch	NA
Web Width	NA
Core Size	NA
Quantity	6,300 pcs/box
Size of Roll	NA
Operating Temperature	-40 °C to 85 °C / -40 °F to 185 °F
On-Metal	NA
ARC Certificates	NA

\*Other product codes available upon request.

Orientation sensitivity



Read range




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


Sustainability features

Durability / Circularity	Enable reuse leading to reduction of full environmental impact, impacting the supply chain overall Scope 3 GHG (Greenhouse Gas) emissions.
--------------------------	--


For more information, please visit the [Avery Dennison sustainability page](#).



Plastic Free




Recyclable




Compostable




Durable




Reusable



Material Reduction



Recycled Content



Responsible Sourcing

Find more label solutions at  
[rfid.averydennison.com](https://rfid.averydennison.com)



#MakingPossible

© 2025 Avery Dennison Corporation. All rights reserved. The "Making Possible" tagline, Avery Dennison and all other Avery Dennison brands, product names and codes are trademarks of Avery Dennison Corporation. All other brands or product names are trademarks of their respective owners. Fortune 500® is a trademark of Time, Inc. Branding and other information on any samples depicted are fictitious. Any resemblance to actual names is purely coincidental.