

# RFID JOURNAL VIRTUALLY LIVE!

SEPTEMBER 30 - OCTOBER 1, 2020

# Ceramics Manufacturer Gains Efficiency with RFID

Varaldo, Ana Carolina  
Production Manager





- Production Engineer
- Postgraduate in Business Management
- Current Position: Industrial Manager at Porto Brasil Ceramics

email address:  
[ana.varaldo@portobrasilceramica.com.br](mailto:ana.varaldo@portobrasilceramica.com.br)

# The Company – Porto Brasil Cerâmica

- Founded in 1998, in Brazil
- Tabletop ceramics manufactures in Brazil
- 22,702.5 m<sup>2</sup> in total built-up area
- 488 employees
- Productive Capacity: 13 MM pieces per year
- Revenue growth in excess of 30% per year
- More than 3,000 Skus in the portfolio



PORTO BRASIL

**RFID**  
JOURNAL  
VIRTUALLY  
**LIVE!**

SEPTEMBER 30 - OCTOBER 1, 2020



# The business need

1º Inventory Accuracy



2º Improve Order Process



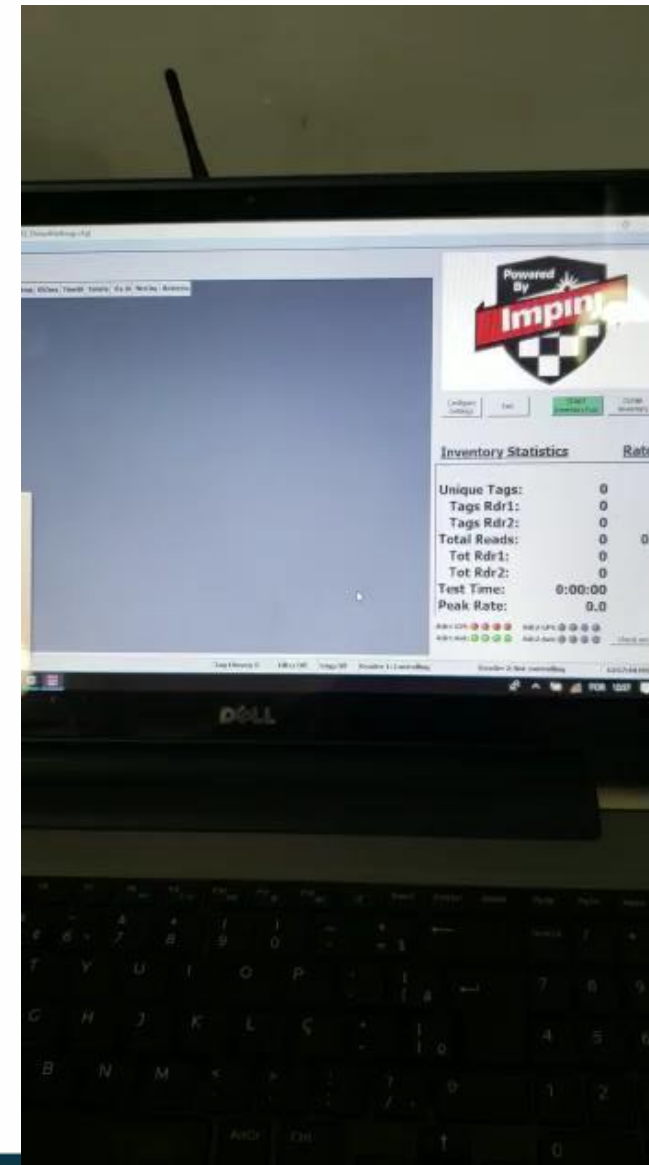
PORTO BRASIL

**RFID**  
JOURNAL  
VIRTUALLY  
**LIVE!**

SEPTEMBER 30 - OCTOBER 1, 2020

# RFID in Each Piece

- Ceramic Reflective Effects could block the signal emitted by the antenna
- Results:
  - 2898 Tags read in 30 seconds
  - Each tag – Represent 2.5% of the total production cost
  - The Project was considered financially unviable



PORTO BRASIL

**RFID**  
JOURNAL  
VIRTUALLY  
**LIVE!**

SEPTEMBER 30 - OCTOBER 1, 2020



# RFID on Carton

- We decided to use 1 tag in each carton
- The cost of the tag was spread over 6
- The existing Technology : Bar Code
  - Long time
  - Increase Losses
  - Reading errors
- Tags printed in the packaging process



PORTO BRASIL

**RFID**  
JOURNAL  
VIRTUALLY  
**LIVE!**

SEPTEMBER 30 - OCTOBER 1, 2020

# Implementation

	July /2019	Aug/2019	Sept/2019	Oct/2019	Nov/2019
Process Mapping					
ERP integration					
Implementation					
Tests					
Equipment Adjustments					



PORTO BRASIL

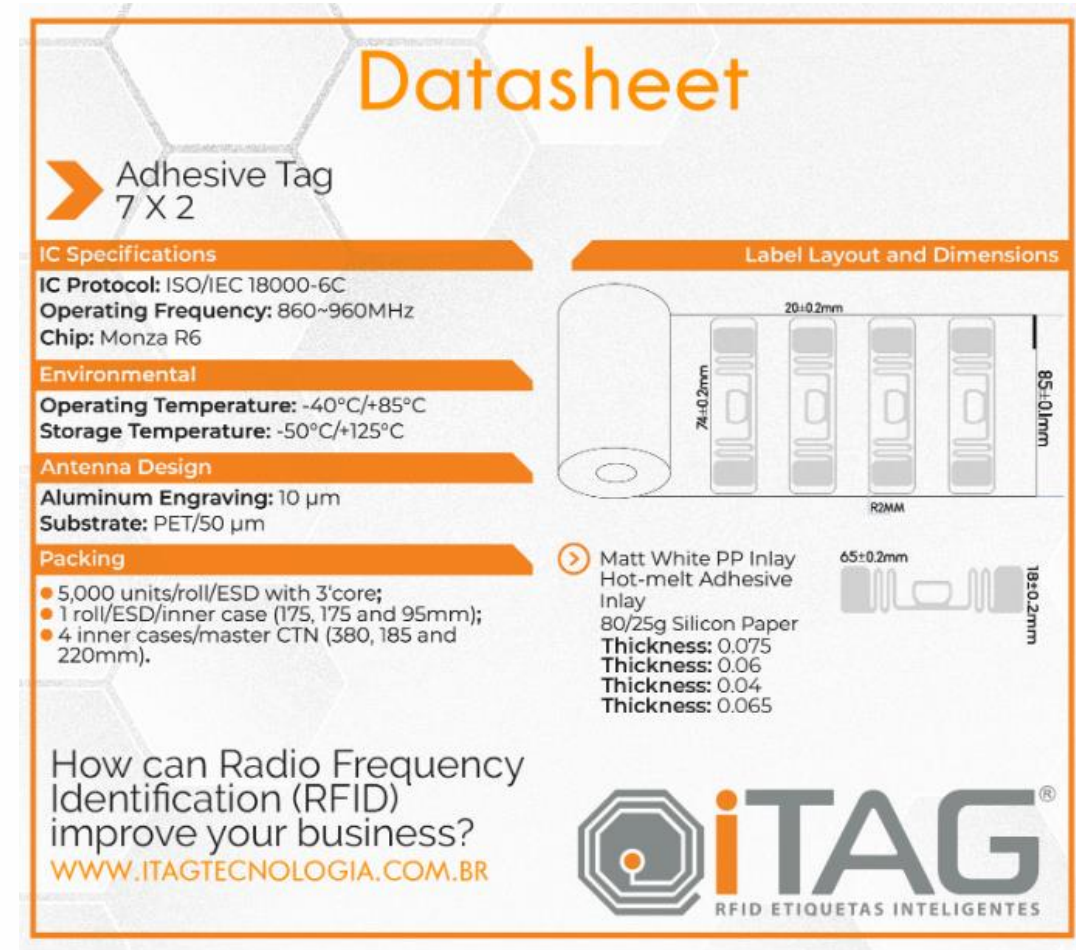
**RFID**  
JOURNAL  
VIRTUALLY  
**LIVE!**

SEPTEMBER 30 - OCTOBER 1, 2020



# Type of RFID

- Partner : ITAG Tecnologia
- Passive 915 Mhz
- Middleware iTag iPrint
- Chip Impinj Monza R6



PORTO BRASIL

**RFID**  
JOURNAL  
VIRTUALLY  
LIVE!

SEPTEMBER 30 - OCTOBER 1, 2020

# What does RFID do in Porto Brasil?



- Pallet Read: 40 minutes to 1 minute
- No more missing items on orders
- The gate has 4 fixed reader (Zebra FX7500)



PORTO BRASIL

**RFID**  
JOURNAL  
VIRTUALLY  
**LIVE!**

SEPTEMBER 30 - OCTOBER 1, 2020



# What does RFID do in Porto Brasil?

- Check before shipment of goods



iAlert - ITAG Tecnologia

itagitagalert.com.br/itagalert\_portoceramica/#/movimentacaoXSpan

## Movimentação X-Span

LEITOR: PA | CICLO ATUALIZAÇÃO: 00:00:09 | AJUSTE DELAY: 00:10:00 | ALERTA SONORO: 00:00:03

OPERAÇÃO: Conferência Coleta | Nº COLETA: 559

EMPRESA ORIGEM: E-COMMERCE | EMPRESA DESTINO: E-COMMERCE

Nº COLETA	Nº NOTA FISCAL	QUANTIDADE	CONFERIDO TRANSPORTE	FALTANTES	LIDOS (X-SPAN)	PERCENTUAL LIDO (X-SPAN)
559	NF 50881[1][1]	3	3	0	3	100,00%
	NF 50882[1][1]	4	4	0	4	100,00%
	NF 50883[1][1]	1	1	0	1	100,00%
	NF 50884[1][1]	2	2	0	2	100,00%
	NF 50885[1][1]	1	1	0	1	100,00%
	NF 50886[1][1]	1	1	0	1	100,00%
	NF 50887[1][1]	5	5	0	5	100,00%
	NF 50888[1][1]	1	1	0	1	100,00%
		18	18	0	18	100%

Sair

17 SAÍDA E-COM DOCA 2

506 E-COMMERCE

Ativar o Windows

10:14 16/09/2020



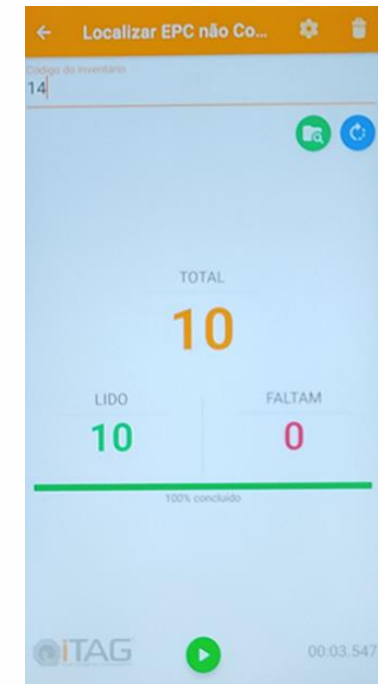
PORTO BRASIL

**RFID**  
JOURNAL  
VIRTUALLY  
**LIVE!**

SEPTEMBER 30 - OCTOBER 1, 2020

# What does RFID do in Porto Brasil?

- Rotating inventories in the warehouse
- Handheld readers scream



PORTO BRASIL

**RFID**  
JOURNAL  
VIRTUALLY  
**LIVE!**

SEPTEMBER 30 - OCTOBER 1, 2020



# Issues

- E-commerce orders – no benefits (.Bat)
- Tags costs
- Exchange variation impact
- Customers do not use technology
- Technology still does not add value to the product



# Benefits

- Inventory accuracy now is 99%
- Reduce Overstock
- Increase efficiency
- Reduction of 4 people in the department
- Improve quality of service while reducing time needed
- Perfect Order Fulfillment
- Customer confidence



PORTO BRASIL

**RFID**  
JOURNAL  
VIRTUALLY  
**LIVE!**

SEPTEMBER 30 - OCTOBER 1, 2020



# Future

- The return on investment has not yet been achieved. We expect to achieve the ROI in 2 years
- Next Steps :
  - Implement self-checkout in our physical store
  - Transform the tag into a vehicle for product information
  - Improve the Asset visibility went from it's "on Warehouse One" to it's in "Lot 2, Row 3, Spot 45"



PORTO BRASIL

**RFID**  
JOURNAL  
VIRTUALLY  
**LIVE!**

SEPTEMBER 30 - OCTOBER 1, 2020

# THANK YOU

**RFID**  
JOURNAL  
VIRTUALLY  
**LIVE!**