



**CII – ENVIRONMENTAL BEST PRACTICES
AWARD - 2023**

**RESOURCES REDUCTION THROUGH PACKAGING
OPTIMIZATION & RAW MATERIAL CONSERVATION**

**Rialto Enterprises Private Limited,
Chennai**

21st June 2023

TRIGGER FOR THE PROJECT

- **Rialto's Environmental Commitment**
 - No plastics (In final packaging),
 - Less plastic (in our product),
 - Better Plastic (Recycled content in product & packaging Material)
- **CGF Golden Design rules committed by Procter & Gamble**
 - P&G will reduce the global use of virgin petroleum plastic in packaging by 50% by 2030.
- **To reduce the waste ending in landfill and to reduce ocean pollution**
- **EPR Regulations**

ENVIRONMENTAL & SUSTAINABILITY POLICY

Rialto recognizes that **Protecting Natural Environment** is highly important and endeavor to **minimize impact** on the environment through the use of raw materials, emissions to air, water and waste generation and ensure **Health, Safety and Well-being** of all stake holders.

Rialto is committed to **prevent** pollution and **continually improve** activities towards Environment & **Sustainability** by

1. **Adhering to highest standards** in **Environment protection and Prevention of pollution** by **implementing and sustaining** a comprehensive **Management System**
2. **Complying** with and **exceed legal** and **other related requirements**.
3. **Strive** to become **lowest specific energy consumer** by **maximizing energy efficiency** and use of **renewable energy** and thereby reducing **Carbon Footprint**.
4. **Conserve** and **Reduce** the consumption of water by **recycle and reuse** of water ~~through water management and water conservation measures.~~
5. **Adopt 3R (Reduce, Reuse and Recycle)** for all types of wastes towards **reduction of impact** on consumption of materials and **environmentally friendly** disposal of **"inevitable"** wastes, in line with the **regulatory requirements or industry best practice**.
6. Conserve & Utilize materials effectively and increase the recycling content in all our raw and packaging materials.
7. Strive to reduce all types of wastes such as transportation, alternate materials etc. to reduce Greenhouse Gas emission and improve the supplier by adopting best practices towards enhancing environmental performance.
8. Promoting and protecting Environment, Health, Safety and well-being of all stake holders
9. Promoting and managing Product Stewardship program, by involving all stakeholders.
10. Incorporate Life Cycle Assessment approach for evaluating new and alternative technologies and products.
11. Rialto engages with various communities through its CSR initiatives for a better tomorrow.
12. Periodically reviewing the policy and objectives to make them appropriate with business needs and industry standards



**RESOURCES REDUCTION
INITIATIVES BY RIALTO**

PACKAGING CONFIGURATION



1. PET Blister



2. Cassette made of PP



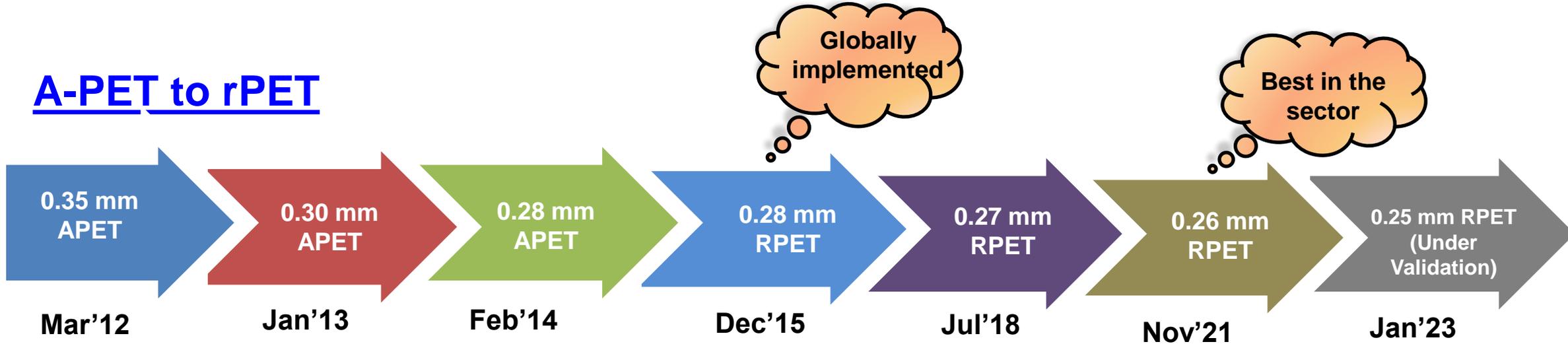
3. Backer card (Paper board)



4. Polyolefin shrink film

1. PET - BLISTER THICKNESS REDUCTION

A-PET to rPET



rPET Roll



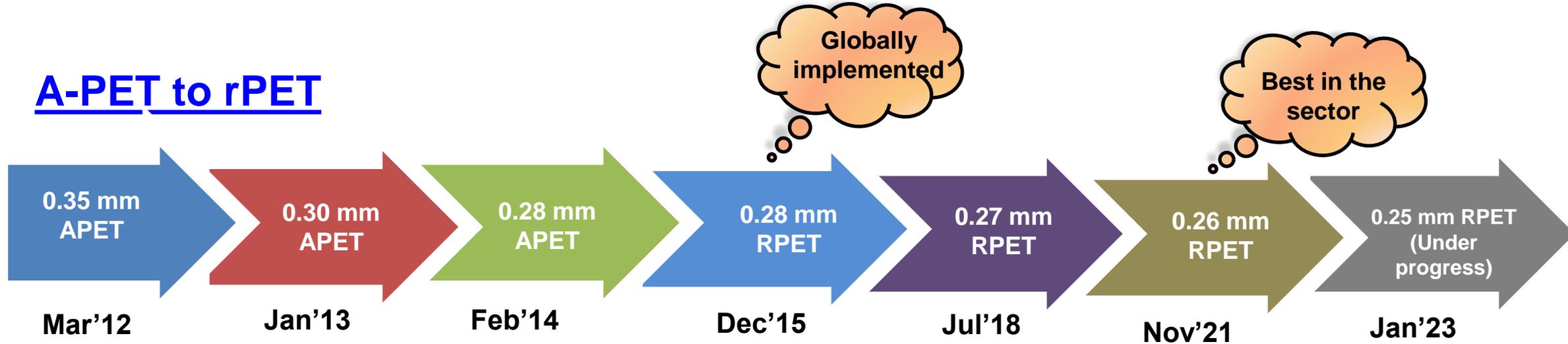
Preformed Blister



6 Pack brush

1. PET - BLISTER THICKNESS REDUCTION

A-PET to rPET



260 MT of PET consumption is reduced in 20-22-23

Packs	Current thickness (in mm)	Revised thickness (in mm)	2022-23 Savings in Plastic Consumption MTs
All Non - BPS	0.28	0.26	211.00
BPS packs	0.30	0.26	19.00
All Diamond packs	0.40	0.30	30.00
			260 MT

2. USE OF PCR MATERIAL IN PLACE OF VIRGIN MATERIAL

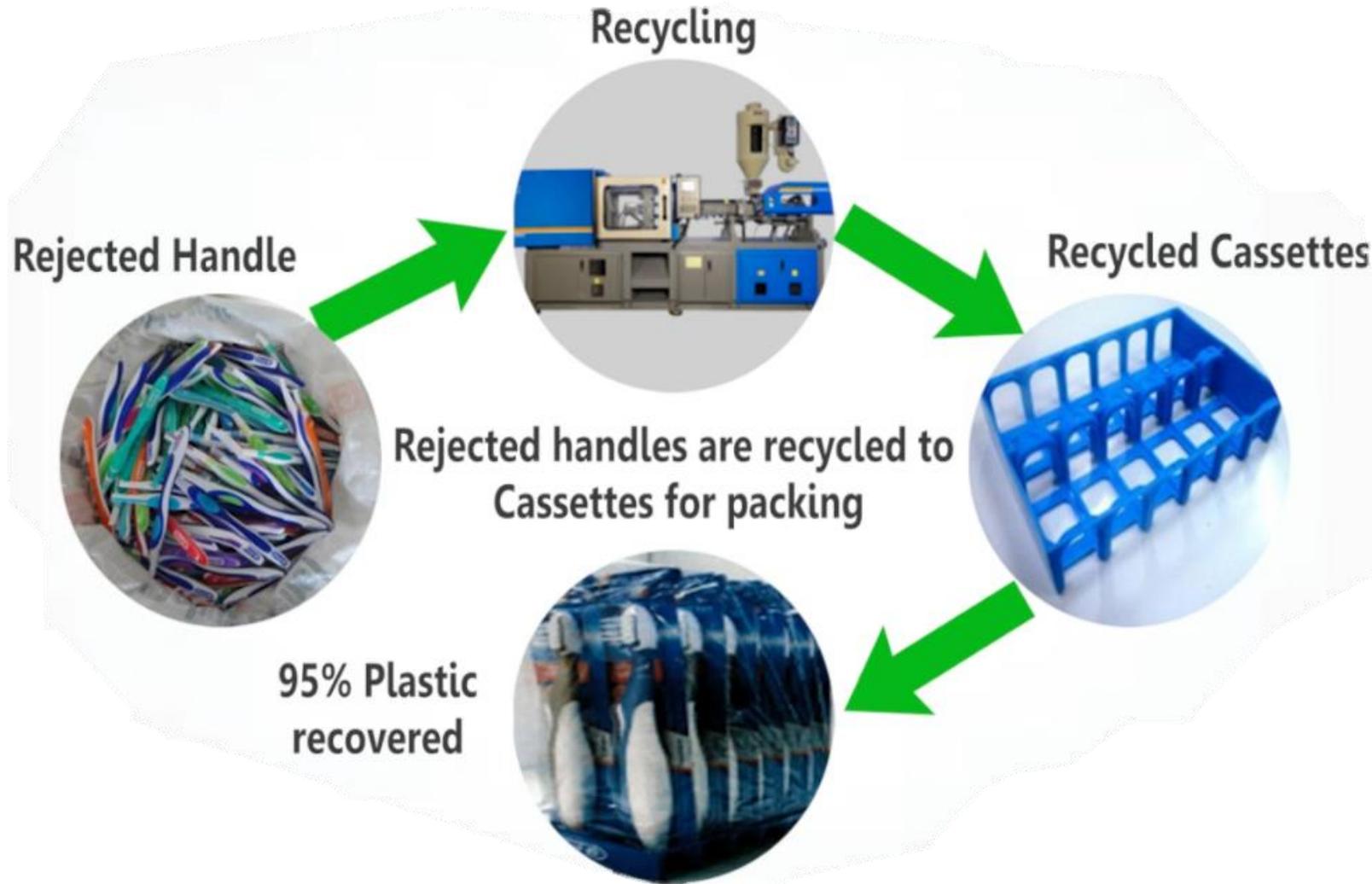
Switching from rPET(30%) to rPET (80%) material

- ❑ Earlier we use **rPET with 70% Virgin & 30% PIR**
- ❑ Now, RPET flakes are derived from **used water bottles**
- ❑ In 2021, we switched to rPET with **60% PCR, 20% PIR & 20% virgin**
- ❑ RPET structure is the sandwich structure of **10:80:10** with the top and bottom layer of virgin and middle layers of recycled pet.

480 MT of PCR consumed in 22-23



3. RECYCLING OF REJECTED HANDLES TO PACKAGING MATERIAL



- Rejected brush handles are recycled into Cassettes and used as a packing material

Benefit 30.60 Tons of waste brush is reused as a cassette in FY 22-23 (till Jan)

4. REPLACEMENT OF VIRGIN PLASTICS WITH RECYCLED PLASTICS

We **virgin PP** for the Remaining cassette requirement,

- **Now replaced the virgin material with Post-Consumer waste as a packaging material (Battery case waste)**



Virgin polypropylene for Cassette



Recycled polypropylene (PCR) for Cassette

Our Yearly raw material requirement for Cassette making

Situation	Virgin PP	Recycled PP
Before (20-21)	510 MT	-
After (22-23)	30 MT (Rejected Handle)	480 MT

Benefit 480 Tons of post-consumer recycled waste used instead of virgin PP



Cassette made of Recycled Material

5. SHRINK FILM GAUGE REDUCTION AND WIDTH OPTIMIZATION

- Shrink film is used in cassette packs
- We have implemented gauge reduction that is from 9 microns to 7.5 microns

Film Type & Size	Micron	Length (Meter)
CT 301- 10",14" & 16"	7.5	2667
CT 302 -10",14" & 16"	9	2100
Yield increase details		27%



Benefit 5.392 MT of virgin POF is reduced

POF Roll - 9 Micron



POF Roll – 7.5 Micron

6. PACKAGING WEIGHT REDUCTION – BACKER CARD

- Reduction of Paperboard GSM from **340 GSM to 270 GSM** for **Multipack Backer card**
- Reduction of Paperboard GSM from **250 GSM to 230 GSM** for **Singles and Hang pack**

Backer Card



ITEM	RAW MATERIAL	Type	Before Consumption (MT)	After Consumption (MT)	Quantity reduced / Annum (MTs)	% Reduction
Backer Card Size Reduction	Paperboard	Recycled	2040	1888	152	7%



Hang pack

Single pack

Multipack

7. INNER BOX WEIGHT REDUCTION

Earlier we use a **400 GSM** Inner box for Export shipment, in 2022 that was changed to a **250 GSM Kraft** Box

Box Type	Weight (g)	Weight Reduction	Annual Savings	Cost Savings (Lakhs)
Old Inner Box	70.1	35%	884 MT	127
New Kraft Box	45.4			

884 MT of paperboard reduced



400 GSM Inner Box



250 GSM Kraft Box

RECYCLED CONTENT IN OUR PACKAGING MATERIAL



PET Blister
80% recycled content



Backer Card
100% recycled content, FSC certified



Corrugated Box
100% recycled content & FSC certified



Inner Box
100% recycled content, FSC certified



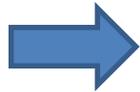
Cassette
100% recycled content (PCR & PIR)



8. MATERIAL CONSERVATION THROUGH LCA

Introduced **Refill type head**, **only** head can be replaced after usage, reduced the plastic waste generation at the consumer end.

BEFORE



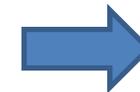
AFTER



Saved 12.3 Tonnes of Virgin Plastic

Material	Muskaan	Mont blanc	Savings	Volume	Yearly volume	Weight difference	Total Kgs Conserved (B)
Total Weight	9.324	4.17	55%	2,00,000	24,00,000	5	12,370

BEFORE



AFTER



Saved 102.9 Tonnes of Virgin Plastic

Material	Xerox	MBC	Savings	Volume	Yearly volume	Weight difference	Total Kgs Conserved (A)
Total Weight	21.828	3.174	85%	4,60,000	55,20,000	19	1,02,972

9. USE OF RECYCLED MATERIAL IN PLACE OF VIRGIN PP

Oral-B Eco Collection



KEY FACTS

- 1st Oral-B Brush made with Food-grade Recycled PP (PCR)
- Handle made with 80% recycled content
- Introduced in Europe, North America
- New proposal to be introduced in several other countries

626.4 MT of post-consumer recycled waste is used instead of Virgin Material

10. EFFORTS TO REDUCE THE REJECTION RATE

- Inner pack Label scanner to avoid the wrong label - introduced in one Mfg cell.
- Self-sufficiency project rolled out to make each cell adequate
- Data integrity / Records handling / CAPA training for all the Shopfloor engineers
- Decentralized Barcode printing system, to be printed within the cells

415 PPM

- Lot code Automation for backer card & Shipper.
- NEEM scheme of Qualified HC introduced for all new projects

480 PPM

Barcode & Artwork scanning system @ supplier end.

2018

2019

- 2D camera introduced on all Zpack machines and Manual lines.
- Label camera setup totally shifted inside of ZPACK machine
- Blue light introduced on all vision system for Better resolution.

164 PPM

2020

26 PPM

2022

2021

148 PPM

- Vision inspection system in All Manual lines.
- Lean Production system workshop and material flow improvements
- Cartridge printer for Shipper
- Cross functional Team developed and deployed for internal defects reduction
- Requalification of inspection associates
- Laser Printing for Backer card integrated With Vision System
- Training on 3M vision system upgradation - Shopfloor Executives.

TOTAL SAVINGS/ANNUM

Sl. No	ITEM	MATERIAL	Quantity reduced / Annum (MTs)	% Reduction	Remarks
1	PET Blister Thickness Reduction	PET	260	18.5%	Virgin PET reduced
2	Use of PCR material in place of virgin Material	PET	480	30 % to 80%	PCR & PIR used instead of Virgin PET
3	Recycling of rejected handle to packaging material	PP	30.6	6%	Virgin to PIR
4	Replacement of Virgin Plastic with PCR	PP	480	94%	Virgin to PCR
5	Shrink Film Gauge Reduction	POF Film	5.39	13%	Virgin POF reduction
6	Backer Card weight Reduction	Paper board	152	8%	Weight Reduction
7	Inner Box Weight Reduction	Paper board	884	38%	
8	PP Saving Due to Mont Blanc and MBC Refill (Head Portion)	PP	115	80%	Reduction in consumption of material due to design change.
9	Use of PCR for Brush Handle	PP	626.4	11%	PP to PCR
10	Efforts to reduce the rejection rate	PP	40	80%	
Total Reduction		Plastic	2037.4	MT	
		Paperboard	1036	MT	

UNIQUENESS OF THE PROJECT

- Currently, **280 microns** virgin PET sheet is used worldwide for Toothbrush Packaging
 - Rialto uses **260 microns** of Recycled PET for packaging (**0.25 mm** under validation)
- First of its kind in the sector to Introduce
 - Toothbrush handle made of Post consumer-recycled waste with 100% paper packaging
- PCR & PIR Waste were used as a packaging material
- Most of the projects don't require any investment, incur cost & material savings



And the Green Journey Continues...