

CII – NATIONAL ENVIRONMENTAL BEST PRACTICES AWARD - 2024

JOURNEY TOWARDS

ZERO WASTE TO LANDFILL

Arun Kumar J

Rialto Enterprises Private Limited,

Chennai

14th May 2024

RIALTO OVERVIEW







100% Contract Manufacturing Unit of P&G

Rialto started manufacturing manual toothbrushes in 2001, Site is ISO:9001:2015, ISO:14001:2015, ISO 45001:2018, ISO 13485:2016 & GreenCo Platinum certified, Ecovadis Silver Rated, Water Positive Facility, Zero Waste to Landfill Certified Facility

RIALTO ENROLLED TO VOLUNTARY CODES AND STANDARDS



RIALTO ENROLLED TO VOLUNTARY CODES AND STANDARDS



SEDEX member -SMETA 4 Pillar Certified





PRODUCTS MANUFACTURED

MANUAL TOOTHBRUSHES





A dedicated Contract Manufacturing unit of Procter & Gamble



MARKET SUPPLIED FROM RIALTO, CHENNAI



Number of countries supplied from this site = >135



SNAPSHOTS OF SITE



Incoming Material Store



R&D Qualified Testing Lab



Main Factory 1 – Tick Tock Cells



Finished Goods Store



P&G Honors Rialto Enterprises, manufacturer of Oral–B toothbrushes with 3rd time External Business Partner of the Year Global Award 2022



Arunkumar J, President - Operations Chander Swamy - CEO & P L Ramanathan, Sr. Vice President - Innovation & Cost Control



This is the 3rd Time in 8 years that Rialto has received this recognition, besides 8 Partner of Excellence awards along the way.







GREENCO PLATINUM RATING FROM CII

Rialto received Green Co Platinum Rating from Cll – Green Business center in February 2022





CII - WATER NEUTRALITY CERTIFICATION



Rialto received the "Water Neutrality Certification" from the Confederation of Indian Industry

1:5 Water Positive Facility



"GREEN CHAMPIONS AWARD" FROM MOEFCC & TNPCB

Rialto received the "Green Champions Award" from Tamil Nadu Government & TNPCB for the activities carried out towards the environmental protection and water conservation





"Green Champion Award" received by Mr. J Arunkumar – President of Operations and Mr. R Laxmankumar – Vice President Quality from Thiru. Siva. V Meyyanathan, Minister of Environment, Climate Change, Forest on 05th June 2022

OTHER AWARDS & ACCOLADE'S



Material Conservation Initiatives



National Environmental Best Practices Award - 2023



Star Performer of the year – 2022 & 2023



Green Supplier Development Program



OUR APPROACH TO CLIMATE CHANGE IMPACT MITIGATION

Our strategic approach Include









GREEN MANUFACTURING PRACTICES AT RIALTO



ZERO WASTE TO LANDFILL JOURNEY

AGENDA







ZWL Journey of Rialto



Benefits Achieved (Tangible & Intangible)



Major Projects Implemented



Challenges faced & Learning from the ZWL Journey





TRIGGER FOR ZWL



JOURNEY TOWARDS ZWL

S. No		Activity	Responsibility		Jan - Mar' 22	Apr- Jun' 22	Jul - Sep ' 22	Oct - Dec ' 22	Jan - Mar' 23	Apr- Jun' 23	Jul - Sep ' 23	Oct - Dec ' 23	Jan - Mar' 24	Apr- Jun' 24
1		Identification of different	Production	Plan										
		waste generated at Rialto	HOD's	Actual										
2	S	Defining of ZWL policy,	Karthick	Plan										
	atio	system		Actual										
3	par	Identifying the Diversion	Karthick/	Plan										
	Pre	techniques	Senthilmurugan	Actual										
4	۲ ۲	Monitoring & Source Segregation systems (Waste	Senthilmurugan	Plan										
	Ñ	management Yard)	/ Vijayakanth	Actual										
5		Training to Employees &	Karthick & Vijayakanth	Plan										
5		SOP, OCP Revision		Actual										
	5	Source Segregation of	a. –	Plan										
6		Waste (Bin System)	Stores Leam	Actual										
7	atic	Identifying the Recycler &	Karthick /	Plan										
1	ent	Site Audit qualification	Senthilmurugan	Actual										
Q	em	Preparation of Action Plan	Karbtick	Plan										
0	ldu	for ZWL	Nannick	Actual										
9	Ļ	Implementation of ZWL	Karthick /	Plan										
	₹ N	Projects	Senthilmurugan	Actual										
10		Achieve ZWL Status	Karthik	Plan										
				Actual										
11	c	3rd party Certification	Karthick /	Plan										
	tio		Senthilmurugan	Actual										
10	tifica	Sharing the best practices with fellow	Arunkumor	Plan										
12	L Cert	industries/suppliers for replication	Arunkumar	Actual										
13	MZ	Outreach to Supply partners	Karthick	Plan								1	8 🖌	
13		to implement ZWL	TATUIUK	Actual										

TYPE OF WASTE GENERATED AT RIALTO

WASTE STREAM IDENTIFICTAION							
	NON-HAZARDOUS WASTE						
HAZARDOUS WASIE	Paper Waste:	Metal Waste:					
5.1 - Used / Spent oil from DG	Backer Card Waste	Aluminium Waste					
5.2 - Wastes / residues containing oil - Solid	Carton Scrap	GI Scrap					
33.1 - Empty barrels / containers	Corrugated boxes	MS scrap					
/ liners contaminated with hazardous chemicals / wastes	Sticker Linear Paper						
OTHER WASTE	Plastic Waste:	Wooden Waste:					
E - Waste	PP Handle Scrap	Wooden Pallet					
Bio medical waste	Black Handle Scrap	Bamboo Handle					
Food W/ooto	Nylon Powder & Nylon filament	Zero Value waste					
roou waste	Poly cover (LDPE)	Headcap, Gloves					
	Seal Cut PET scrap	Rubber band					
Battery Waste	Other plastic waste	Biscuit cover, Food packaging's waste					



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WASTE GENERATION TECHNIQUES

S.No	Waste Type	Method of Disposal	Recycling Techniques				
Plastic W	aste						
1	Plastic Handle waste (Rejections)	Reuse	Converted into Cassettes and reused inhouse				
2	PET Blister Cut Waste (Forming waste)	Recycling	Recycled into PET Sheets				
3	Seal Cut Waste during Packaging	Recycling	Recycled into Polyester yarn for Carment making				
4	PP Runner and Lumps Waste during Moulding	Recycling	Recycled into rotyester yann for Garment making				
5	Nylon powder/brush head/bristles Waste	Recycling	Recycled into Nylon rope				
<mark>Paper Wa</mark>	ste						
6	Backer Card Waste (Rejections)	Recycling	Recycled into Cardboard used for Book Binding application				
7	Carton Box Waste	Recycling	Recycled and made corrugated paper rolls				
8	Sticker & Barcode Linear Paper	Recycling	Recycled into Paper Pulp and sent to Paper Industry for Paper making				
Wooden V	Waste						
9	Bamboo handle Waste	Waste to Energy	Given as a boiler fuel to recover the energy				
10	Wooden Waste	waste to Energy	Given as a bolter ruet to recover the energy				
<mark>Metal Wa</mark>	ste						
11	GI Waste	Recycling					
12	Aluminium Waste	Recycling	Melted and recycled into different products				
13	MS Waste (Mould + others)	Recycling					
14	Zero value Waste	Waste to Energy	Coprocessing at Cement Mills for Energy Recovery				
<mark>Hazardou</mark>	s waste						
15	Used oil	Recycling	Recycled into Furnace oil to use in boiler/ Furnace				
16	Waste containing oil residues	Coprocessing	Coprocessing at Cement Mills for energy Recovery				
<mark>Other Wa</mark>	ste						
17	E - Waste	Recycling	Recycling				
18	Biomedical waste	Recycling	Controlled Incineration by Authorised Recycler				
19	Food waste	Reuse	To Cattle Feed				
20	Battery Waste	Recycling	Recycled through Buy Back Scheme				
21	Biomass waste (Garden Waste)	Repurpose	Converted into Vermicompost and reused as manure				

For the collection of Non-Process waste, 3 Bin system introduced inside and outside the shopfloor area

COLLECTION OF WASTES FROM SHOP FLOOR – MF1

COLLECTION OF WASTES FROM SHOP FLOOR – MF2





HAZARDOUS WASTE

S.No	Item Description	Items Photos		(3) In-
1	Machine cleaned / Oil tipped / Lot code Ink cleaned cotton waste cloths cotton waste cloths			
2	Empty lot code ink container & Pouch waste		Non-Degredebbs Whate Only	
2 Azardous wa	Barcode printing black Carbon paper waste.			

HAZARDOUS WASTE (RED), BIODEGRADABLE (GREEN) AND RECYCLABLES (BLUE) WASTE

PAPER WASTE





PLASTIC WASTE

S.No		Item Description	Items Photos	Trolley color
1		Polythene cover		
2		Wastage/loose Nylons from M/c's		
3	gge	Blister card Waste from Seal cut M/c		
4	astic wasta	Blister card roll Waste from B1M & Hoonga		
5	Ъ.	Empty anchor wire spools		Blue
6		Teared off seal cut Blister cards		
7		Teared off pouches / POP		
8		HIPS tray		







Rejection toothbrushes collected in Red Bins for Segregation





METAL WASTE







IDENTIFIED PLACE FOR EACH WASTE

BEFORE





MONITORING AND TRACKING OF WASTE

 Monitoring the waste disposals (Process waste) through SAP for effective monitoring and disposal

∟⊑ <u>L</u> ist	<u>E</u> dit <u>G</u> oto	<u>S</u> ettings En <u>v</u> ironment System <u>H</u> elp									
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Mat	Material Document List										
	ны 🕄 🖗	1 4 😨 🔄 🔟 😰 🏂 📓 🔉 🛱									
Plant	Material	Material description	Stor. loc.	MvT	Material Document	Batch	Reference	Document Date	Posting Date	₽Qty in UnE EUn	Order
R001	7000029	RG10 Green RP JCP Motherson	M001	101	5000079276	0000328883	2723000691	28.09.2023	29.09.2023	1,500 KG	
R001	7000029	RG10 Green RP JCP Motherson	M001	101	5000078769	0000326714	2723000647	15.09.2023	19.09.2023	1,000 KG	
R001	7000029	RG10 Green RP JCP Motherson	M001	101	5000077898	0000322614	2723000590	01.09.2023	02.09.2023	2,450 KG	
R001	1200119_RP	RB10 Blue RP JCP Motherson	M001	101	5000079276	0000328882	2723000691	28.09.2023	29.09.2023	4,000 KG	
R001	1200119_RP	RB10 Blue RP JCP Motherson	M001	101	5000079277	0000328884	2723000692	28.09.2023	29.09.2023	2,000 KG	
R001	1200119_RP	RB10 Blue RP JCP Motherson	M001	101	5000078739	0000326693	2723000648	15.09.2023	19.09.2023	2,750 KG	
R001	1200119_RP	RB10 Blue RP JCP Motherson	M001	101	5000078767	0000326712	2723000654	15.09.2023	19.09.2023	750 KG	
R001	1200119_RP	RB10 Blue RP JCP Motherson	M001	101	5000078769	0000326713	2723000647	15.09.2023	19.09.2023	2,500 KG	
R001	1200119_RP	RB10 Blue RP JCP Motherson	M001	101	5000077898	0000322613	2723000590	01.09.2023	02.09.2023	5,000 KG	
R001	1200119_RP	RB10 Blue RP JCP Motherson	M001	101	5000077899	0000322615	2723000591	01.09.2023	02.09.2023	2,000 KG	
										23,950 KG	

Frequency of Disposal:

- Daily
- Weekly
- Monthly

Based on the quantity generation



MONITORING AND TRACKING OF WASTE

• Monitoring the disposals through SAP for effective monitoring and disposal

Sr. No	Category	Types of waste	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Total waste disposed
1	Hazardous	5.1 - Used/Spent Oil	0.042	0	0	0.0168	0	0	0.2352	0	0	0.126	0	0	0.420
2	Hazardous	5.2 Waste Containing Oil residues	0.0052	0	0	0.025	0	0	0.0122	0	0	0.033	0	0	0.075
3	Hazardous	33.1 - Empty Containers	0	0	0	0	0	0	0	0	0	0	0	0	0.000
4	Non-Hazardous	Plastic scrap (PP scrap)	2.122	1.382	1.035	1.294	0.816	0.5942	1.071	1.244	1.4852	0.261	2.6937	1.71593	15.71
5	Non-Hazardous	Aluminium Scrap (Anchor wire + others)	0.5566	0.0019	0.6974	0.00656	0.8799	0	0.485	0.058	0.0036	1.464	0.002	0.0124	4.17
6	Non-Hazardous	BC. Carton Scrap	0	2.368	0	7.2	0.202	0	0.211	0.39	1.27	0.062	0.138	0.224	12.07
7	Non-Hazardous	Bamboo handle scrap	0	0	0	0	0	0	0	0	0	0	0	0	0.00
8	Non-Hazardous	Black Handle Scrap	2.1224	1.5642	0.6425	0.919	0.83	0.5889	0.801	1.179	1.4853	0.96	2.723	1.508	15.32
9	Non-Hazardous	Broken tray, bin, table, chair etc.,Scrp	0	0	0	0	0	0	0	0.102	0.488	0	0	0	0.59
10	Non-Hazardous	Carton Scrap	4.9904	5.0652	4.5355	4.126	3.751	3.127	4.541	3.677	4.1522	3.665	3.81	3.275	48.72
11	Non-Hazardous	GI Scrap	0.011	0	0.0415	0	0	0	0.176	0	0	0	0	0	0.23
12	Non-Hazardous	MISC. Carton Box Scrap	0	0	0	2.52	0.3566	0	0	0	0	0	0.264	0	3.14
13	Non-Hazardous	MS scrap (Mould + others)	0.46	0	0	0	0.4722	0	0.09	0.36	0	1.0187	0	0	2.40
14	Non-Hazardous	Nylon powder/brush head/bristles Scrap	3.2666	4.505	3.3189	4.0454	3.7862	2.222	5.695	4.52	5.2047	3.7195	3.945	4.37	48.60
15	Non-Hazardous	Polycover Scrap POF Pouch	0	0	0	0	0	0	4.48	0.581	0.3344	0.3515	0.348	0.3877	6.48
16	Non-Hazardous	TPR scrap	2.1224	1.2625	0.566	1.834	0.816	1.3	1.601	1.613	1.4853	0.0631	1.729	1.508	15.90
17	Non-Hazardous	Wooden Scrap	0.255	0.9	0.66	0.84	3.36	0	0.31	0.39	1.46	0	0	0	8.18
18	Non-Hazardous	Seal Cut Scrap from 10 UP	12.98	9.84	8.74	9.56	10.76	11.21	14.35	19.859	9.23	8.855	11.35	11.599	138.33
19	Non-Hazardous	Linear Scrap	0.18	0.25	0.24	0.2	0.28	0.34	0	0	0	0	0	0	1.49
20	Non-Hazardous	Rejected Handle for Cassette (Jayachandran Plastics)	0	0	2	0	0	0	2	0	0	0	0	0	4.00
21	Non-Hazardous	Rejected Handle for Cassette (RMG)	0	0	0	0	0	0	0	0	0	0	0	0	0.00
22	Non-Hazardous	Snacks Biscuit Covers, Sweeping waste, Breakfast & lunch packaging, Head Cap, Gloves	0.287	0.235	0.212	0.302	0.295	0.26	0.21	0.32	0.256	0.199	0.283	0.243	3.10
23	Food Waste	Food residues of Breakfast & lunch	0.347	0.34	0.416	0.331	0.371	0.37	0.457	0.464	0.445	0.411	0.404	0.306	4.66
24	Biomedical Waste	Used Cotton, Bandage, etc.,	0.0004	0.0004	0.0005	0.0003	0.0005	0.0003	0.00032	0.001571	0.00	0.0011	0.00	0.00	0.0070
25	E- Waste	Computer accessories, Battery, Electrical Components like wires, Lights, etc.,	0.0688	0	0	0	0	0	0.0346	0	0	0	0.0225	0	0.13
26	Battery Waste	UPS Battery	0	0	0	0	0.1659	0.0165	0	0.1106	0.0248	0	0.0352	0	0.35
			29.8	27.7	23.1	33.2	27.0	20.0	36.8	34.8	27.3	21.2	27.7	25.1	334.07

Supreme Petro Products 5.1 Used Oil



Rialto Chenn	Enterprises Pvt Ltd, nai	Righto
/endo Addre	r Name SUPREME PERRO PRODUCTS, No. 225/1A, 2J, 225/1AK, ss Eguvay Palayam, Giummidipoondi Taluk, Tisvallar District.	Auditee name: KARTHICK V SENTHIL MURU MANAGER SUSTAINABILITY
P	8870107642	
S.no	Check points	Observation
1	To verify does the supplier had obtained Consent order from TNPCB.	YES, available
2	To check validity of consent	180518936980, Valid tils March 31, 2024
3	Are they any Air/water permits required ?	YES, Obtained from TNPCB
4	Does supplier has obtained legal compliance of all applicable environment requirements	Hazardous Waste authonisation fill March 31, 2026.
5	Does the recycler comply with all applicable permissible exposure limits for sampling and monitoring	AAQ is Naise report's are not available at site.
6	Are the permits required for recycling	Yes
7	Collected waste stored properly with identifications	Collected in Bulk storage to
8	Personnel whose handling hazardous waste by using proper PPE	Few Employeels were not ust PPEIS.
9	Basic safety information readily accessible?	Not available.
10	Are the site personal familiar with proper handling of hazardous waste and site emergency procedures?	YES, Emergency responses team available is aware.
11	Housekeeping of all are of the facility planned, regularly implemented and monitored ?	Leakage to be avcested at final product (FO) loader
Area o	fimprovement 1. Legal Compliance 2. Leakaguis to b	file to be available at site re arriested at loading bay.
Date :	17.02.2024	Auditor Name with Stopeture 7200
		*CHENNAL-Y
		30 Rial

Quality Business Systems 5.2 Waste/ Residues Containing Oil



Vendo	Name QUALITY BUSINESS SYSTEMS	
Addre	ss SF 505, Ambatur Industria Estate, Chennai - 58. Poc: HemakumAR 7550230633	Auditee name: KARTHICK SENTHILMUR Manager - Sustainab Rialto
S.no	Check points	Observation
1	To verify does the supplier had obtained Consent order from TNPCB.	YES (2305150293865) VALIDITY: March 31,2028
2	To check validity of consent	March 31,2028
3	Are they any Air/water permits required ?	Yes, Airio Water Consent
4	Does supplier has obtained legal compliance of all applicable environment requirements	Has a Valid Haz. Waste authorization till 25012.2025.
5	Does the recycler comply with all applicable permissible exposure limits for sampling and monitoring	AAR & noise test are under TNPCB permusable l
6	Are the permits required for recycling	YES, TSIDF Preprocessor obtaining
7	Collected waste stored properly with identifications	YES, Stored with Identification
8	Personnel whose handling hazardous waste by using proper PPE	YES, PPE'S Used while hand
9	Basic safety information readily accessible?	Not available
10	Are the site personal familiar with proper handling of hazardous waste and site emergency procedures?	XES, Employee's were trained at Emg. responses.
11	Housekeeping of all are of the facility planned, regularly implemented and monitored ?	- Good -
Area o	Improvement 1. Ensure parebook Collecting the Haz.	System is in place while Wonte.
Date :	17.02.2024	(KARTHICK) J. Y CONTRACTOR AND A CONTHIL MUR

Rialto

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VICTORY RECOVERY & RECYCLING E-WASTE





Sri Venkateswara Paper Board Sticker Linear Wastepaper



Addr	ress S.F. No. 244/1, Rethureddipatti, Saltur.	Auditee name: $\ker_{\mathcal{H} \subset \mathcal{K}} $
S.nc	Check points	Observation
1	To verify does the supplier had obtained Consent order from TNPCB.	VES CTO (2407154072485)
2	To check validity of consent	Tin Max 31, 2024
3	Are they any Air/water permits required ?	YES
4	Does supplier has obtained legal compliance of all applicable environment requirements	YES
5	Does the recycler comply with all applicable permissible exposure limits for sampling and monitoring	- NA -
6	Are the permits required for recycling	CTO Obtained (NA)
7	Collected waste stored properly with identifications	YES Stored with Adout
8	Personnel whose handling hazardous waste by using proper PPE	PPE's water used (Non-hai
9	Basic safety information readily accessible?	- No -
10	Are the site personal familiar with proper handling of hazardous waste and site emergency procedures?	- NA -
11	Housekeeping of all are of the facility planned, regularly implemented and monitored ?	House Keeping to be Improv
ea of	Inprovement 2. Residual water, 1	be improved has to diverted to ETP
	N. N	Kyent BPHIS



ZWL IMPLEMENTATION ACTION PLAN

S.No	Type of waste	Activity	Method	Status	
1	Ink Cartridge Ink Containers	Technology Upgradation from Ink based to Laser Printing	Elimination	Completed	
2	Sticker Linear Wastepaper	Converted to Paper Pulp and sent as a raw material to TNPL, Seshasayee Paper And Boards Ltd, Tissue Paper Manufacturers	Recycle	Completed	
3	Seal Cut Waste	1. PET Sent to PET Bottle/sheet Manufacturers	Recycle	Completed	
0	(PET + Cardboard)	Cardboard) 2. Cardboard used for bookbinding		Completed	
4	Paper	Paper Less Office - Optimum use of Papers	Reduction	Completed	
5	Corrugated Boxes	Shipper to Reusable Bins	Reuse	Completed	
6	Rejected Handles	Rejected Handles to Cassette	Reuse	Completed	
7	Seal Cut Waste (PET + Cardboard)	Introduction of Z-Pack Machines	Reduction	Completed	
8	Green Waste	Vermicompost system - Biocomposting of Biomass to Manure	Recycle & Reuse	Completed	
9	Paper	Paper Cups replaced with Cups and Tumbler	Elimination	Completed	
10	Wooden Waste	Sent as a Boiler Fuel to Hotels	Reuse	Completed	
11	Nylon power	Nylon Rod and Rope	Recycle	Completed	
12	Food Waste	Food for Cattle Feed	Reuse	Completed	
13	Rejected Handles & PP lumps from supplier	For the polsyter industry for thread making	Recycling	Completed	
14	3 Bin System	Source Segregation of Waste	-	Completed	
15	Source Segregation of waste	Modification of Waste Management Yard	-	Completed	



1. STICKER LINEAR WASTE TO PAPER PULP



Investment: Nil Savings: 6 Lakhs/Annum Waste diverted: 22 MT



Sent to Paper manufacturers (TNPL) and converted to White Paper and Tissue paper





Tissue

Paper



2. RECYCLING OF SEAL CUT WASTE TO POLYESTER YARN



3. RECYCLING OF THERMO-FORMING WASTE TO PET ROLL





Grinded to R-PET Flakes



Sent to R-PET Roll Manufacturers





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4. PAPER LESS OFFICE INITIATIVE OPTIMUM USE OF PAPERS

- 1. Employee In-Out entry automation
- 2. Digitization of Operators' lunch coupons
- 3. Digitization of ISO Audit documents and digital signatures of documents
- 4. Employee training through the LMS system
- 5. Reduction of Q Sticker (by 50% by optimization)
- Digitalization of all SOP & Pre-Printed book QA and Production to CROWN software
- Maintenance DIE Room Optimization by 2 Side Printing & Combined Location to reduce consumption
- 8. Optimization of Oral-B Visual Checklist Booklet

Investment: Nil 1.3 tonnes of waste reduction Benefit 2.6 lakhs/ Annum



5. SHIPPER TO REUSABLE BOXES

Reusable PP boxes were replaced for RM & PM Shipment and the boxes were sent back to the Supplier for the next supply





More than 86% of the buy value comes in reusable packaging except Imported materials



6. REJECTED HANDLES TO CASSETTE





7. REJECTED HANDLES TO THREAD MAKING IN POLYESTER INDUSTRY



8. RECYCLING OF CORRUGATED BOX TO PAPER

Used corrugated boxes



Recycler Shredded it and sent to Paper Mills



Recycled into Paper Rolls and sent to Corrugated Box Manufacturers





9. TECHNOLOGY UPGRADATION FROM INK-BASED TO LASER PRINTING

Cartridge vs LASER Printing

Before

After





BENEFITS

- Eliminate the purchase of Inks
- Avoided the Disposal of Hazardous waste Category 33.1
- Eliminated the ink spillage and cleaning
- 3 Manpower Reduction



Cartridge vs LASER Printing



10. TECHNOLOGY UPGRADATION INTRODUCTION OF Z-PACK MACHINES





11. NYLON POWDER TO NYLON ROPE & ROD



Nylon Trim Waste



12. SOURCE SEGREGATION OF WASTE INTRODUCTION OF 3 BIN SYSTEM



13. MODIFICATION OF WASTE MANAGEMENT YARD TO STORE DIFFERENT WASTE





14. VERMICOMPOST SYSTEM BIOCOMPOSTING OF BIOMASS TO ORGANIC MANURE



15. WOODEN PALLETS & BAMBOO HANDLE WASTE



(Energy Recovery)



16. FOOD WASTE TO CATTLE FEED



OUR EFFORTS & BENEFITS

S.No	Type of waste	Activity	Method	Waste Diverted (MT)	Investment (Lakhs)	Total Savings
1	Ink Cartridge Ink Containers	Technology Upgradation from Ink based to Laser Printing	Elimination	2.3	220	56
2	Sticker Linear Wastepaper	Converted to Paper Pulp and sent as a raw material to TNPL, Seshasayee Paper And Boards Ltd, Tissue Paper Manufacturers	Recycle	22	Nil	6
3	Seal Cut Waste (PET + Cardboard)	1. PET Sent to PET Bottle/sheet Manufacturers 2. Cardboard used for bookbinding	Recycle	138	Nil	1.5
4	Paper	Paper Less Office - Optimum use of Papers	Reduction	1.3	3.84	2.6
5	Corrugated Boxes	Shipper to Reusable Bins	Reuse	48.7	4.9	26
6	Rejected Handles	Rejected Handles to Cassette	Reuse	40	Nil	4.4
7	Seal Cut Waste (PET + Cardboard)	Introduction of Z-Pack Machines	Reduction	12	1400*	13.2
8	Green Waste	Vermicompost system - Biocomposting of Biomass to Manure	Recycle & Reuse	44	4.2	-
9	Paper	Paper Cups replaced with Cups and Tumbler	Elimination	1.3	2.6	0.18
10	Wooden Waste	Sent as a Boiler Fuel to Hotels	Reuse	8.18	Nil	-
11	Nylon power	Nylon Rod and Rope	Recycle	48.6	Nil	2.6
12	Food Waste	Food for Cattle Feed	Reuse	4.66	Nil	-
13	Rejected Handles & PP lumps from supplier	For the polsyter industry for thread making	Recycling	40	Nil	9.057
14	3 Bin System	Source Segregation of Waste	-	Nil	3.6	-
15	Source Segregation of waste	Modification of Waste Management Yard	-	Nil	2.9	-
			Total	411 MT	242.4 Lakhs*	121.5 Lakhs
		*Machinery Capex investment by is not	included			

ZWL – DIVERSION AWAY FROM LANDFILL

Waste Disposal Details (Jan – Dec 2023)



Diversion Table (Jan – Dec 2023)			
Method of Disposal	Quantity in MT	%	
Recycle	314.05	94.01%	
Reuse	8.66	2.59%	
Waste To Energy	11.35	3.40%	
Incineration	0.01	0.002%	
Landfill	0	0%	
Total diversion waste in percentage %	99.998%		

RecycleIncineration

■ Reuse
■ Landfill

■ Waste To Energy

THIRD-PARTY VERIFICATION OF ZWL

CERTIFICATE OF VERIFICATION	Intertek Total Quality. Assured
<text><section-header><text><text><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></text></text></section-header></text>	Certification Number: ZMU-2024-08 Initial Verification Date: 30 March 2024 Date of Certification Decision: 30 March 2024 Certificate Issued: 31 April 2024 Certificate Valid Until: 29 March 2027 VERIFIED Certificate Valid Until: 29 March 2027 VERIFIED Certificate Valid Until: 29 March 2027
In the locannee of this certificate, intervels assume no liability to any party other than to the Client, and then only in accordance Agreement. This certificates validity is subject to the or genization maintaining their system in accordance with intertel's requir may be confirmed via email at certificate validation@intertel.com. The certificate remains the property of intertel, to whom it must be returned upon request. CT2WL_Verified-Unace-UN44-14.03.23	with the agreed upon Critification energy for systems certification. Validity

Rialto received the **"Zero Waste To Landfill** Certification" from the Intertek in March 2024

99.99 % of waste is diverted from Landfills, *Includes 3.4% Waste to Energy



TANGIBLE BENEFITS

- 99.998% of waste diverted from landfills resulted in no land pollution
- 100% reusable packaging for incoming packaging domestic supplies
- Single-use plastic ban approx 2.6 MT/annum
- Total savings/annum due to the above projects is Rs. 121.5 lakhs/annum

approx.

- Contribution to SDG 12 & 13
- Mitigation of negative environmental impact





INTANGIBLE BENEFITS

- Created a robust waste segregation system
- Motivation and awareness amongst the team help for the reduction in

Maintenance consumables, RM & PM

- Resource conservation and waste reduction resulted in savings of resources for the people, and society.
- Established a robust system for the Recycler audit system
- The mindset of the people changed from "Scrapyard" to "Waste

Management & Control yard"



LIST CHALLENGES FACED AND STEPS TO OVERCOME

Category	Challenges	Steps taken to Overcome
People Related	Lack of Awareness – Cultural change among the employees / migrant employees	Detailed analysis of waste generation and Extensive training for the waste management team
	Lack of awareness about the latest recycling techniques	Attended several national & international workshops/summits to understand the latest recycling practices
		Approach our raw material/PM suppliers to understand how they recycle their waste
	No Major focus to waste projects implementation as the returns are less	KPI assigned to employees on waste reduction and material conservation
Systems Related	A well-established system available for Haz Waste Disposal (recycling & Documentation), not for Process waste	Tracking of waste and invoicing converted to SAP for better monitoring
	Waste data monitoring and reporting systems not robust	Separate tracker made and monitored monthly and reported to Leadership team during the monthly review
	No sufficient OCPs in the Aspect & impact & HIRA	Relevant SOPs were revised with suitable control methods and displayed across the factory
	Source Segregation of waste	Process stream wise waste generation identified
		Bin Systems were introduced and educated housekeeping team for source segregation of waste
Technology related	Limited recycling techniques	Network with IWMA and other waste recycling associations to identify the recyclers
	Identification of Recyclers	Approached our RM/PM suppliers to understand their approach
	Efforts towards paper less office - Digitisation technologies seems costly	Optimisation of paper completed, complete digitalisation of training records to be planned
	Technology related to recycling of Headcap, gloves, rubber band, MLP packets	Sent to Cement for Coprocessing
	Disposal of Biomass (tree fallings)	Inhouse vermicomposting made and resued as organic manure



AND OUR GREEN JOURNEY CONTINUES...