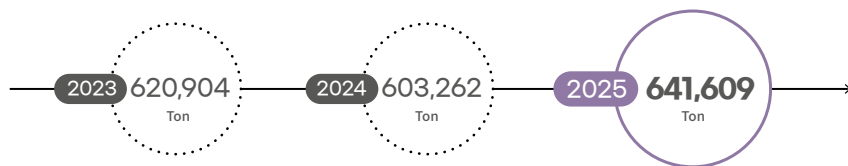


# Environment

## Environmental Performance Management

### Water Usage Management

JW is committed to minimizing water consumption in its manufacturing processes and maximizing the reuse of wastewater. We will continue to reduce water consumption by optimizing water use throughout the manufacturing process and increasing the rate of water reuse.



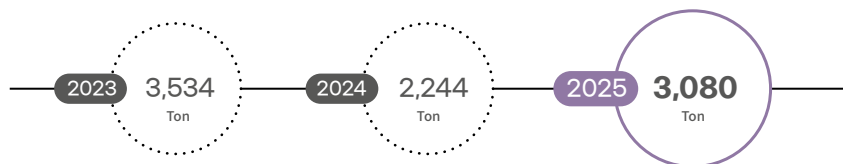
Category		2023		2024		2025		Remarks	
		Target	Performance	Target	Performance	Target	Performance		
JW Pharmaceutical Dangjin Plant	Tap Water	Ton	17,947	17,769	15,182	15,047	13,893	13,769	
	Industrial water	Ton	110,073	108,983	87,394	86,614	90,328	89,522	
	Groundwater	Ton	0	0	0	0	0	0	
	Recycling volume	Ton	1,697	1,680	1,695	1,680	1,695	1,680	
	Recycling rate	%	-	1.3	-	1.7	-	1.6	
JW Pharmaceutical Siwha Plant	Tap Water	Ton	17,967	17,789	12,465	12,354	14,954	14,821	
	Industrial water	Ton	3,226	3,603	0	0	0	0	
	Groundwater	Ton	0	0	0	0	0	0	
	Recycling volume	Ton	5,471	5,417	2,394	2,373	2,394	2,373	
	Recycling rate	%	-	25.3	-	19.2	-	16	
JW Life Science Dangjin Plant	Tap Water	Ton	26,990	26,723	34,649	34,340	38,999	38,651	
	Industrial water	Ton	185,644	181,436	169,825	168,310	198,760	196,987	
	Groundwater	Ton	259,909	257,336	257,381	255,085	260,004	257,685	
	Recycling volume	Ton	93,870	92,941	93,817	92,980	102,190	101,278	
	Recycling rate	%	-	20.0	-	20.3	-	20.5	
JW Shinyak Pyeongtaek Plant	Tap Water	Ton	7,115	7,073	7,491	7,424	5,891	5,838	
	Industrial water	Ton	0	0	0	0	0	0	
	Groundwater	Ton	0	0	0	0	0	0	
	Recycling volume	Ton	-	-	-	-	-	-	
	Recycling rate	%	-	-	-	-	-	-	
JW사옥	Tap Water	Ton	25,299	25,046	24,331	24,088	24,582	24,336	
	Recycling volume	Ton	-	-	-	-	-	-	
	Recycling rate	%	-	-	-	-	-	-	
<b>Water consumption</b>		Ton	654,170	645,758	608,718	603,262	<b>647,410</b>	<b>641,609</b>	
<b>Total Recycled Water Volume</b>		Ton	101,038	100,038	97,906	97,033	<b>106,279</b>	<b>105,331</b>	
<b>Water Recycling Rate</b>		Ton	-	15.5	-	16.1	-	<b>16.4</b>	

# Environment

## Environmental Performance Management

### Water Consumption Management

JW strives to minimize water usage in the manufacturing process and to maximize the reuse of used water. In 2024, water usage was 579,174 tons, a 6.7% decrease compared to 2023. Going forward, we will continue to reduce water consumption by minimizing water use in the manufacturing process and increasing the reuse rate.



Category		2023		2024		2025		Remarks	
		Target	Performance	Target	Performance	Target	Performance		
JW Pharmaceuti- cal Dangjin Plant	General waste	Ton	240	204	202	171	202	291	Waste Pharmaceuticals Waste Organic Solvents
	Designated Waste	Ton	12	12	12	47	12	51	
	Total	Ton	251	216	214	218	214	342	
	Recycling volume	Ton	40	35	35	101	35	153	Waste Acid (Boiler Descaling Water)
	Recycling rate	%	-	16.2	16.2	46.3	16.2	44.7	
JW Pharmaceuti- cal Siwha Plant	General waste	Ton	194	194	192	84	192	65	Liquid Organic Solvents - Waste Oil, Waste Liquid, Waste Acetone
	Designated Waste	Ton	2,280	2,257	2,234	906	2,234	1,636	
	Total	Ton	2,476	2,451	2,426	990	2,426	1,701	
	Recycling volume	Ton	1,496	1,481	1,410	575	1,410	1,099	
	Recycling rate	%	-	60.4	58.1	58.1	58.1	64.6	
JW Life Science Dangjin Plant	General waste	Ton	840	832	824	1,007	824	1,007	
	Designated Waste	Ton	5	5	5	7	5	7	
	Total	Ton	845	837	828	1,015	828	1,015	
	Recycling volume	Ton	230	228	226	345	226	345	
	Recycling rate	%	-	27.2	27.2	34.0	27.2	34	
JW Shinyak Pyeo- ngtaek Plant	General waste	Ton	22	22	22	16	22	16	
	Designated waste	Ton	8	8	8	6	8	6	
	Total	Ton	31	30	30	22	30	22	
	Recycling volume	Ton	8	8	8	4	8	4	
	Recycling rate	%	-	27.1	27.1	19.4	27.1	19.4	
<b>Total Waste Generated</b>	Ton	-	<b>3,534</b>	-	<b>2,244</b>	-	<b>3,080</b>		
<b>Total Waste Recycled</b>	Ton	-	1,752	-	1,025	-	1,601		
<b>Waste Recycling Rate</b>	%	-	<b>49.6</b>	-	<b>45.7</b>	-	<b>52.0</b>		

# Environment

## Environmental Performance Management

### Eco-friendly Purchasing Policy

JW is striving to fulfill its social responsibility toward the environment. To this end, the company is actively responding to climate change by expanding the purchase of eco-friendly materials and introducing recyclable packaging.

### Raw and Subsidiary Materials Usage Performance

Category	Plant	2024		2025		
		Performance	Unit	Performance	Unit	
Raw Materials	Primary raw materials	JW Pharmaceutical Dangjin Plant	71,572	KG	139,226	KG
		JW Pharmaceutical Sihwa Plant	56,085	KG	1,130,037	KG
		JW Life Science Dangjin Plant	8,203,891	KG	7,855,482	KG
	Secondary raw materials	JW Pharmaceutical Dangjin Plant	140,975	KG	145,591	KG
		JW Life Science Dangjin Plant	69,100	KG	311,138	KG
		JW Pharmaceutical Dangjin Plant	21,056,273	EA	19,202,644	EA
Materials	Rubber stoppers / Aluminum caps	JW Pharmaceutical Sihwa Plant	1,390	EA	120	EA
		JW Pharmaceutical Dangjin Plant	3,635,081	EA	3,674,136	EA
	Other auxiliary materials	JW Pharmaceutical Sihwa Plant	6,543	EA	12,827	EA
		JW Life Science Dangjin Plant	21,039	ROL	4,236,090	ROL
		JW Pharmaceutical Dangjin Plant	83,896,562	EA	89,470,596	EA
	Labels	JW Life Science Dangjin Plant	37,676,669	EA	39,496,090	EA
		JW Pharmaceutical Dangjin Plant	1,756,391	EA	2,107,732	EA
	Boxes	JW Pharmaceutical Sihwa Plant	1,381	EA	2,488	EA
		JW Life Science Dangjin Plant	14,906,655	EA	12,677,580	EA
	Manuals	JW Pharmaceutical Dangjin Plant	20,738,580	EA	19,392,204	EA
		JW Life Science Dangjin Plant	7,224,767	EA	6,909,000	EA
	Aluminum foils	JW Pharmaceutical Dangjin Plant	6,896	ROL	6,494	ROL
	Caps / Ampoules / Vials	JW Pharmaceutical Dangjin Plant	14,788,200	EA	9,351,892	EA
	Cases	JW Pharmaceutical Dangjin Plant	26,351,682	EA	24,045,061	EA
	Plastics	JW Pharmaceutical Dangjin Plant	80,446,726	EA	78,080,751	EA
		JW Pharmaceutical Sihwa Plant	55	EA	-	EA
		JW Life Science Dangjin Plant	362,532,645	EA	367,263,857	EA
	Synthetic resins	JW Pharmaceutical Dangjin Plant	2,443	ROL	3,185	ROL
IV bags and overwraps	JW Life Science Dangjin Plant	112,036,908	EA	108,774,699	EA	
Printing ribbons	JW Life Science Dangjin Plant	8,562	ROL	7,992	ROL	

### Eco-friendly Material Purchase Performance

Company	Material Item	2024		2025	
		Purchase Quantity (EA)	Purchase Amount (KRW)	Purchase Quantity (EA)	Purchase Amount (KRW)
JW Pharmaceutical	Eco-friendly paper cases	23,088,830	2,352,952,920	23,153,633	2,378,602,507
JW Life Science	FSC-certified boxes	2,214,134	1,192,088,025	1,970,602	1,166,440,246

# Environment

## Environmental Performance Management

### Air Pollutant Management

To minimize air pollution caused by substances emitted from production facilities, emissions of nitrogen oxides, sulfur oxides, and dust are managed. The average emission concentration is maintained at less than 30% of the legal limit.

Category		2023		2024		2024		
		Target	Performance	Target	Performance	Target	Performance	
JW Pharmaceutical Dangjin Plant	NOx (Nitrogen Oxides)	Ton	2.8	2.8	2.2	2.2	1.5	1.5
	SOx (Sulfur Oxides)	Ton	0.0	0.0	0.0	0.0	0	0
	Dust	Ton	0.1	0.1	0.1	0.1	0.1	0.1
	Total	Ton	2.9	2.9	2.3	2.3	1.6	1.6
JW Pharmaceutical Siwha Plant	NOx (Nitrogen Oxides)	Ton	0.7	0.7	0.5	0.5	0	0
	SOx (Sulfur Oxides)	Ton	Not Subject to Emission					
	Dust	Ton	0.7	0.7	0.6	0.6	0.4	0.4
	Total	Ton	0.7	0.7	1.1	1.1	0.4	0.4
JW Life Science Dangjin Plant	NOx (Nitrogen Oxides)	Ton	3.8	3.4	2.5	2.5	3.1	3.1
	SOx (Sulfur Oxides)	Ton	0.0	0.0	0.0	0.0	0	0
	Dust	Ton	0.1	0.1	0.1	0.1	0.1	0.1
	Total	Ton	3.9	3.5	2.6	2.6	3.2	3.2
<b>Total</b>	Ton	-	<b>7.1</b>	-	<b>6.0</b>	-	<b>5.2</b>	

### ※Average Air Pollutant Emission Concentration in 2025

Category	Unit	NOx (Nitrogen Oxides)	SOx (Sulfur Oxides)	Dust	
JW Pharmaceutical Dangjin Plant	Average Emission Concentration	ppm, mg/m <sup>3</sup>	33.2	0	0.6
	Legal Limit	ppm, mg/m <sup>3</sup>	40	35	30
	Exceedance Ratio*	%	80.5	0	2.7
JW Pharmaceutical Siwha Plant	Average Emission Concentration	ppm, mg/m <sup>3</sup>	26.5	-	1.2
	Legal Limit	ppm, mg/m <sup>3</sup>	50ppm	-	100mg/sn <sup>3</sup> 이하
	Exceedance Ratio*	%	0	-	0
JW Life Science Dangjin Plant	Average Emission Concentration	ppm, mg/m <sup>3</sup>	29.3	-	1.2
	Legal Limit	ppm, mg/m <sup>3</sup>	40	-	35
	Exceedance Ratio*	%	73.3	-	3.4

Exceedance Ratio = (Emission Concentration / Legal Limit) × 100

# Environment

## Environmental Performance Management

### Water pollutant management

JW manages its targets through various activities aimed at minimizing pollutant emissions. In addition, water pollutants are continuously monitored and managed using a TMS (Tele-Monitoring System), with data shared with the Ministry of Environment, and pollutants are discharged below the legal limits.

Category		2022		2023		2025		
		Target	Performance	Target	Performance	Target	Performance	
JW Pharmaceutical Dangjin Plant	Biochemical Oxygen Demand	Ton	0.2	0.1	0.2	0.2	0.1	0.1
	Total Organic Carbon (TOC)	Ton	0.5	0.2	0.0	0.0	0.1	0.1
	Suspended Solids (SS)	Ton	0.2	0.1	0.1	0.1	0.1	0.1
	Total Nitrogen (T-N)	Ton	0.3	0.1	0.1	0.1	0.1	0.1
	Total Phosphorus (T-P)	Ton	0.0	0.2	0.0	0.0	0.1	0.1
	Total	Ton	1.2	0.7	0.4	0.4	0.5	0.5
JW Pharmaceutical Siwha Plant	Biochemical Oxygen Demand	Ton	0.1	0.1	0.1	0.1	0.1	0.1
	Total Organic Carbon (TOC)	Ton	0.1	0.1	0.1	0.1	0	0
	Suspended Solids (SS)	Ton	0.2	0.3	0.2	0.2	0.2	0.2
	Total Nitrogen (T-N)	Ton	0.0	0.0	0.0	0.0	0	0
	Total Phosphorus (T-P)	Ton	0.1	0.1	0.0	0.0	0.1	0.1
	Total	Ton	0.5	0.6	0.4	0.4	0.4	0.4
JW Life Science Dangjin Plant	Biochemical Oxygen Demand	Ton	0.1	0.1	0.0	0.0	0.5	0.5
	Total Organic Carbon (TOC)	Ton	1.1	1.1	1.0	1.0	1.2	1.2
	Suspended Solids (SS)	Ton	0.6	0.6	0.7	0.7	0.7	0.7
	Total Nitrogen (T-N)	Ton	0.6	0.6	0.7	0.7	0.6	0.6
	Total Phosphorus (T-P)	Ton	0.0	0.0	0.0	0.0	0	0
	Total	Ton	2.5	2.4	2.4	2.4	2.9	2.9
<b>Total</b>	Ton	<b>8.5</b>	<b>7.5</b>	<b>6.4</b>	<b>6.3</b>	<b>6.4</b>	<b>6.3</b>	

### ※Average Water Pollutant Emission Concentration in 2024

Category	Unit	TOC	COD	SS	T-N	T-P	
JW Pharmaceutical Dangjin Plant	Average Emission Concentration	ppm, mg/m <sup>3</sup>		4			
	Legal Limit	ppm, mg/m <sup>3</sup>	Not Applicable	10	Not Applicable		
	Exceedance Ratio*	%		28			
JW Pharmaceutical Siwha Plant	Average Emission Concentration	ppm, mg/m <sup>3</sup>	6.3	-	2	4.3	0.1
	Legal Limit	ppm, mg/m <sup>3</sup>	75	-	120	60	8
	Exceedance Ratio*	%	8.4	-	1.7	7.1	1.4
JW Life Science Dangjin Plant	Average Emission Concentration	ppm, mg/m <sup>3</sup>	4.7	-	2.7	2.3	0.2
	Legal Limit	ppm, mg/m <sup>3</sup>	20	-	10	20	2
	Exceedance Ratio*	%	23.5	-	27	11.4	7.8

\* Exceedance Ratio = (Emission Concentration / Legal Limit) × 100