

table | Material Balance

INPUT	2005	2004	2003	
	QUANTITY			
Raw materials				
Aluminum	2,304,000	1,104,000	720,000	kg
Iron/Steel	1,513,000	725,000	494,000	kg
Auxiliary materials				
Blasting material	20,500	14,600	5,750	kg
Paints, thinners	1,324	645	550	kg
Alkali washing liquid	29,053	24,262	10,815	kg
Ferro clean	105,300	108,800	87,200	kg
Glue	88	97	31	kg
Emulsion additive	34,796	36,226	22,114	kg
Oil for calibration and machining	409,635	400,000	192,580	kg
Grease	0	5,086	23	kg
PVC gloves	4,248	na	na	kg
Rubber gloves	10,032	4,786	3,684	kg
Cotton gloves, textile	203,772	165,036	126,951	kg
Chemicals				
Sodium hydroxide (NaOH)	20,746	50,100	16,700	kg
Sodium nitrate (NaNO ₃)	10,350	9,650	4,750	kg
Sodium nitrite (NaNO ₂)	2,741	3,300	1,600	kg
Hydrochloric acid (HCl)	15,058	12,780	7,500	kg
Methanol	8,800	12,200	0	kg
Salt for waste water treatment	236,000	182,000	20,030	kg
Energy				
Electricity	47,806	34,460	18,530	MWh
City gas (natural gas)	3,328,645	2,420,827	1,729,300	m ³
Technological gas				
Ammoniac (NH ₃)	130	76,860	4,600	kg
NM gas	300	300	100	m ³
Nitrogen gas	412,040	87,300	28,500	m ³
Carbon dioxide (CO ₂)	4,522	3,990	3,500	kg
Water				
Water	115,973	98,977	73,968	m ³
Own well	5,120	0	4,109	m ³
Others				
Office paper	36,000	10,751	8,270	kg
Packaging material	6,150	na	69,090	kg
Plastic	98,954	13,312	0	kg

OUTPUT	2005	2004	2003		DESTINATION OF WASTE
	QUANTITY				
Product/waste/scrap					
Products	12,951,757	3,271,000	2,583,000	kg	
Aluminum waste	219,068	167,251	81,480	kg	Recycling
Steel waste	399,916	365,742	215,471	kg	Recycling
Scrap	504,331	318,970	110,671	kg	Recycling
Hazardous waste					
Waste dust	23,078	10,956	5,103	kg	Recycling
Grinding mud	27,580	41,412	47,775	kg	Recycling
Painted metals	1,008	692	344	kg	Incineration
Painted textiles	62	na	na	kg	Incineration
Oilly water alkali waste	42,288	233,404	0	kg	Distillation and recycling
Halogen-free solvent (Ferro clean)	66,970	60,520	61,730	kg	Recycling and reuse
Glue	0	4	0	kg	Used
Halogen-free cooling emulsion	72,423	124,570	0	kg	Recycling
Oilly emulsion	872,227	701,202	587,334	kg	Recycling
Used oil	141,527	113,568	58,350	kg	Recycling
Lubricant	224	na	na	kg	Incineration
Oilly PVC gloves	6,307	2,558	1,439	kg	Incineration
Oilly rubber gloves	12,150	3,735	2,555	kg	Incineration
Oilly textiles	282,428	238,285	131,175	kg	Incineration
Oilly plastic	12,420	13,229	5,125	kg	Incineration
Other alkali waste	22,093	131,680	1,396	kg	Incineration
Halogen waste	1,252	3,946	4,836	kg	Incineration
Solution containing NaNO ₃	82,731	39,115	22,104	kg	Incineration
Acid waste	286	204	140	kg	Incineration
Other organic solvents	3,976	278	0	kg	Incineration
Chemical remaining	0	2,214	0	kg	Incineration
Plastic waste contaminated with chemical	3,675	2,505	0	kg	Recycling
Glass contaminated with chemical remainings	166	489	0	kg	Incineration
Air emission					
Carbon monoxide (CO)	11,061	1,090	838	kg	
Nitrogen oxide (NO _x)	19,590	2,400	1,856	kg	
Sulphur dioxide (SO ₂)	1	0	0	kg	
Paraffins (C _n H _{2n+2})	3,906	7,272	5,593	kg	
Dust	1,249	673	480	kg	
Waste water					
Industrial waste water	14,520	18,480	11,820	m ³	Biological treatment
Waste water mud	319,154	211,380	111,452	kg	Recycling
Communal waste water	101,453	46,829	59,683	m ³	Biological treatment
Other hazardous and non-hazardous waste					
Communal waste	44,200	65,380	42,202	kg	Landfill
Paper waste	196,106	117,138	77,360	kg	Recycling
Packaging waste					
Plastic waste	39,413	16,110	8,440	kg	Recycling
Electronic waste	460	218	0	kg	Incineration
Wood	240,600	0	0	kg	Recycling
Metal	4,000	0	0	kg	Recycling