

Aluminum Foil Production in Armenia

*Unlocking Opportunities for
Market Expansion and Profit*

Overview

History of Aluminum Foil Production in Armenia

Aluminum foil production in Armenia was first commissioned in 1950 during the Soviet Union. The first mill, “**Kanaker Aluminum Smelter,**” was one of the largest in the Soviet Union and Europe in the 1980s. After the dissolution of the Soviet Union, the plant became privatized and “**Rusal-Armenal**” took over. Nowadays, “**Rusal-Armenal**” is the market leader for Aluminum foil production in Armenia.

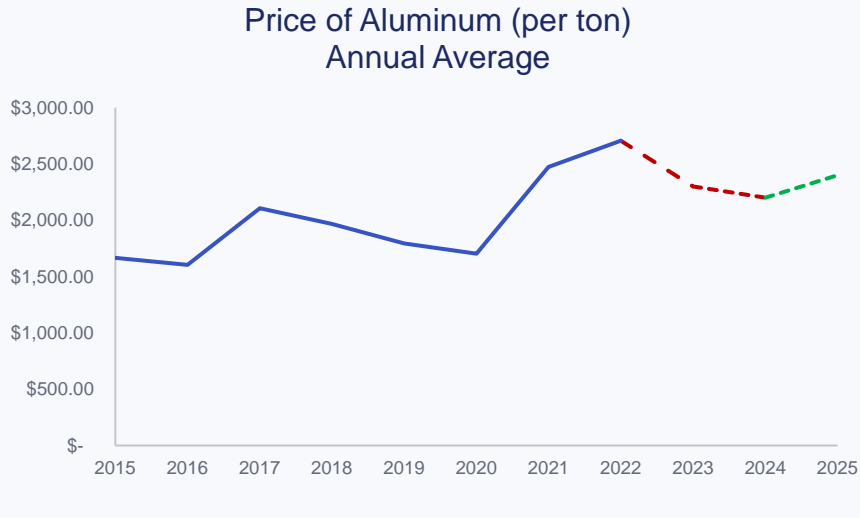
Facts and Figures

In 2022, the export value of aluminum and articles thereof in Armenia was around **\$142 Mln.** In the same year, Armenia imported **35,000 tons of unwrought aluminum,** with a total value of **\$99 Mln.** In turn, Armenia exported **\$132 Mln.** worth of aluminum products. Armenia exported **6,000 tons of unwrought aluminum** in the same year, with a value of **\$14 Mln.** The growth of aluminum foil products exports in Armenia has been **7%,** and for imports **16%** on average y-o-y since 2015. On a global level, the same trend can be observed, as aluminum products’ trade has increase on average by **8.5%** y-o-y since 2015.

Objective

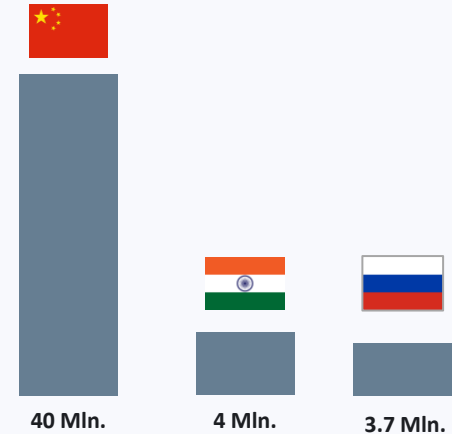
Armenia’s aluminum foil market is limited to producing and exporting aluminum foil for others to create products, as opposed to creating the actual products themselves. This leaves a huge untapped local and global market that is worth exploring. **Our purpose is to investigate both the local and global markets for aluminum foil production, and explore opportunities for integrating into the production value chain locally.**

Aluminum as a Commodity – Price Growth Expected to Stall



In Q1 of 2023, prices of aluminum as a commodity were **32% above their 2015-2019 average**. However, the price in Q3 of 2023 was **5% lower than the previous quarter**. Prices are **expected to continue falling in 2024**, and **rebound by only 9% in 2025** (*World Bank projection*).

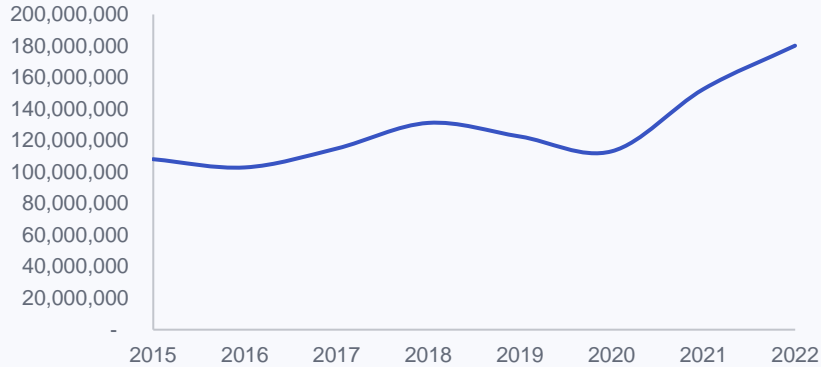
Top 3 Aluminum Producing Countries
2022, Metric Tons



China is the world's largest aluminum commodity producer by far. Therefore, price fluctuations in the market are determined by China's supply and production capabilities.






Global Aluminum Foil Market – Demand is on the Rise

Global Aluminum Products Trade Value, 1000 USD (excl. unwrought)





Since 2015, the average growth of aluminum products trade value y-o-y has been **8.5%**. A noticeable spike can be observed post-Covid period in 2021 with **34%**. Most of the research indicates that the aluminum market will continue to grow at a steady rate, given the growing demand for its use in **transmission lines, electric vehicles, and solar panels**.

Top 5 Importers

-  USA
-  Germany
-  China
-  Mexico
-  Italy

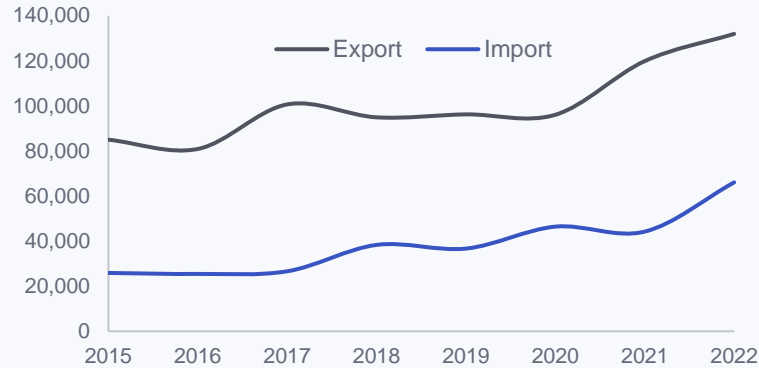
Top 5 Exporters

-  China
-  Germany
-  USA
-  Canada
-  Russia

In 2022, aluminum and articles thereof (including unwrought) were the **16th most imported products** globally (1.1% of all imports) and **17th most exported products** (1.1% of all exports). **Aluminum foil** is the 6th most imported and 7th most exported aluminum product globally (20% of total aluminum trade, 2022).

Armenian Aluminum Market – Exhibiting Growth Pattern

Aluminum Products External Trade, 1000 USD (excl. unwrought) | Armenia



Since 2015, the average y-o-y growth of aluminum **exports** in Armenia is **7%**, and for **Imports** it's **16%**. We can notice a spike post-Covid period for exports only, which grew by **24%** in one year.

In 2022, Armenia imported 35,000 tons **unwrought aluminum** (entirely from Russia), with a total value of 99 Mln. USD. In the same year, Armenia exported 6,000 tons of **unwrought aluminum**, with a total value of 14 Mln. USD.

Countries Armenia exports to | top 5 | 2022

-  Germany (\$59 Mln.)
-  Poland (\$19 Mln.)
-  Italy (\$12 Mln.)
-  Netherlands (\$12 Mln.)
-  United Kingdom (\$7 Mln.)

Previously, one of the **main aluminum export partners of Armenia was the United States**. However, following the sanctions imposed on Russia, Armenia was affected and lost the United States as an importer of aluminum products.

From 2018 - 2021, the average value of aluminum products **exports to the USA was 25 Mln. USD**. Post-sanctions in 2022, this dropped **down to 1 Mln. USD**.

Supply and Demand Landscape of Aluminum in Armenia

Supplying Companies

Total: **43** companies

Metexim; Edmet: Unwrought aluminum

Rusal-Armenal: Aluminum foil, aluminum plates/sheets

Majority share; mainly export foil for others to transform it into its final state.

Royal Print; Multi Tabak: Aluminum foil (thin)

Small share; mainly export foil for cigarettes that may (or not) be backed with paper and other materials.

Ecoville: Aluminum bars, rods, pipes and tubes

Very small-scale, exports intended for solar panels.

Autobody; Rio Motors; Logist Auto; Armtech Auto: Pipes and tubes of aluminum alloys

Very small-scale, mainly export automotive parts and accessories.

Demanding Companies

Total: **517** companies

Food and Beverages: Aluminum foil (thin)

Grand Candy: candy and chocolate bars packaging

Marianna: dairy products' packaging (milk seal, yoghurt seal, etc.)

Royal Armenia: coffee packaging

Construction: Hollow profiles of aluminum alloys

Hakhverdyan Shinmontazh: construction of doors, windows, boards, composite panels for exterior façade.

EuroProfile: manufacturing doors, re-construction of building materials, elevators, systems.

AM Group: manufacturing aluminum windows and doors, wholesale trade of aluminum profiles and accessories.

Tobacco: Aluminum foil (thin)

Grand Tobacco, Multi Tabak, Armenian Tobacco Company: used inside cigarette packaging, can be backed with paper

Pharmaceuticals: Aluminum foil

A-Lab pharmaceuticals, Esco-Pharm, Medical Horizon: used for packaging medicine (blisterfoil)

“Rusal-Armenal” – Armenian Market Leader of Aluminum Foil Production



“Rusal-Armenal” is the **main producer** of aluminum foil in Armenia. It is a subsidiary of the Russian company “Rusal” – one of the largest aluminum production companies in the world (**6.2% of global production in 2022**). Rusal specialized in products with more than 700 applications in construction, electronics, transport, etc.

“Rusal-Armenal’s” Production

We can see from the list of production below that Armenal produces aluminum foil for other business to use in creating products from it. **“Rusal-Armenal’s” main function does not lie in producing the products themselves.**

Aluminum foil/tape for industrial applications

Aluminum foil for packaging

Aluminum foil for household applications

Aluminum foil for production of food containers

Aluminum foil for lamination

Aluminum and aluminum alloy strips

Thickness (mm): 0.007 – 0.2; 0.2 – 1.5; 0.007 - 0.24;
0.007 – 0.025; 0.25 – 8.5; 0.035 – 0.01

Aluminum Foil Value Chain Expansion in Armenia: Products and Financials



There are Many Aluminum Foil Productions that Armenia Can Expand Into



Food Packaging

Chocolate bar foil, Snack Packaging



Medical

Blister packs for medication, x-ray shielding



Industrial

Heat exchangers, pipe insulation, capacitor wrapping



Electronics

Circuit boards, battery packaging



Construction

Vapor barriers, roof insulation



Cigarette Packaging

Cigarette foil wrapping



In our case, we will focus

on:

Cigarette Packaging

Food Packaging

Medicine Wrapping

Capacitor Wrapping

Deep Diving into the Products and Facts

Figures are for 2022



Cigarette Packaging Foil

Thickness : 0.006 – 0.007mm

Cigarettes Production in

Armenia: \$365 Mln.



Confectionery packaging

Thickness: 0.010 – 0.014 mm

Confectionery Production in

Armenia: \$96 Mln.



Medicine Wrapping

Thickness: 0.025 – 0.028

Medicine Production in

Armenia: \$18 Mln.



Capacitor wrapping

Thickness: 0.005 – 0.01 mm

Capacitor Production in


Armenia: -

Demand of aluminum foil articles for these products

HS Codes	Product	Demand in Armenia	Supply from Armenia	Global Imports (6-digit)
7607201000 7607111109 7607111901 7607191000	Cigarette & Conf. Packaging, Capacitor Wrapping	\$9.7 Mln.	\$1 Mln.	\$18.5 Bln.
7607199009 7607209000 7607119000 7607199001	Medicine Wrapping	\$0.7 Mln.	13 Mln.	

Target Countries

(Import value of the products – 6-digit)

-  Germany (**1.2 Bln.**)
-  France (**\$645 Mln.**)
-  UAE (**\$390 Mln.**)
-  Belgium (**\$353 Mln.**)
-  Russia (**\$145 Mln.**)
-  Iran (**\$72 Mln.**)
-  Kazakhstan (**\$19 Mln.**)
-  Georgia (**\$3.5 Mln.**)
-  Belarus (**\$2.5 Mln.**)
-  Kyrgyzstan (**\$2.3 Mln.**)

Exploring the Financials and Assumptions



Initial Investment

Machinery

Cost of 1 production machine, with delivery and installation

\$4 Mln.

Set-Up Costs

Installation
Construction
Design

\$1 Mln.



Operating and Other Variable Costs

Percent of Sales

Raw Materials

25%

Overheads, and variable costs (first 3 years)

60%

Overheads, and variable costs (4th year onward)

40%



Other Assumptions

Discount Rate

14%

Inflation

4%

Income Tax

20%

Machinery Depreciation Period, years

15

Local Demand Growth, Year

10%

Global Demand Growth, Year

5%



Total Investment

\$5 Mln.



Capacity, year

Volume

7200 tons

Value

\$30 Mln.

Income Statement and Ratios Indicate that the Investment is Profitable

	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>
Sales (Local & Global)	\$ 2,860,000	\$ 4,404,400	\$ 6,921,200	\$ 13,668,666	\$ 18,616,054
Raw Materials	\$ 715,000	\$ 1,101,100	\$ 1,730,300	\$ 3,417,166	\$ 4,654,013
Overheads & Others	\$ 1,716,000	\$ 2,642,640	\$ 4,152,720	\$ 5,467,466	\$ 7,446,421
Depreciation	\$ 333,333	\$ 333,333	\$ 333,333	\$ 333,333	\$ 333,333
Rent	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
Profit Before Tax	\$ (154,333)	\$ 77,326	\$ 454,846	\$ 4,200,699	\$ 5,932,285
Net Profit	(\$154,333)	\$61,861	\$363,877	\$3,360,559	\$4,745,828



Profitability Indicators

PP <i>Years</i>	5
ROI <i>(5-year average)</i>	33.5%
NPV <i>(5 years)</i>	\$664K
IRR <i>(5 years)</i>	17.9%

Prices in Armenia are Competitive with Import Figures

Imports | 2022

Total Value	\$10,400,000
Total Weight (tons)	2003
Price per Ton	\$5,200

If we introduce a 10% margin of error to the cost calculations of the Armenian production, the price of manufacturing in Armenia would remain competitive at **4,817 USD per ton.**

Armenia Production | Max Capacity

Total Costs	\$31,533,000
Total Weight (tons)	7200
Cost per Ton	\$4,380

In case the Armenian government introduces of tax benefits for new aluminum foil producers in the market, the price per ton in would go down further by **at least 100 USD per ton.**



The Armenian production costs are based on:

- Machinery maximum capacity per year: **7200 Tons**
- Variable costs in case of maximum production
- Initial investment: **machinery and initial set-up costs**
- Tax paid to the government

Why Should We Expand Aluminum Foil Production in Armenia?

Profitability

Our profitability study proved that the project will be beneficial for the investor

Competitiveness

Our study shows that if we were to produce Aluminum foil in Armenia, the pricing would be competitive to the international market.

Expertise

The current production landscape allows for expansion. With the existing experts in the field, it will be easier to provide training for new machinery.

