

# **Aluminum Foil Production in Armenia**

*Unlocking Opportunities for  
Market Expansion and Profit*

# Overview

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## 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

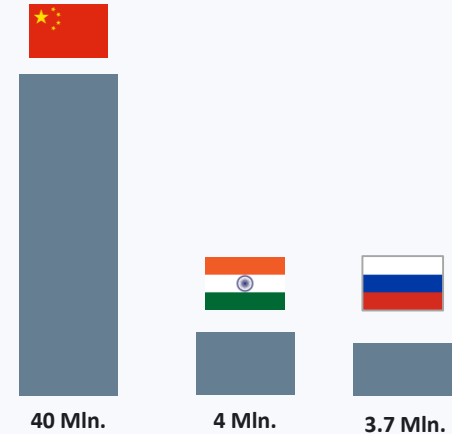
Armenia’s aluminum foil market is limited to producing and exporting aluminum foil for others to create products, as opposed to creating the actual products themselves. This leaves a huge untapped local and global market that is worth exploring. **Our purpose is to investigate both the local and global 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*).

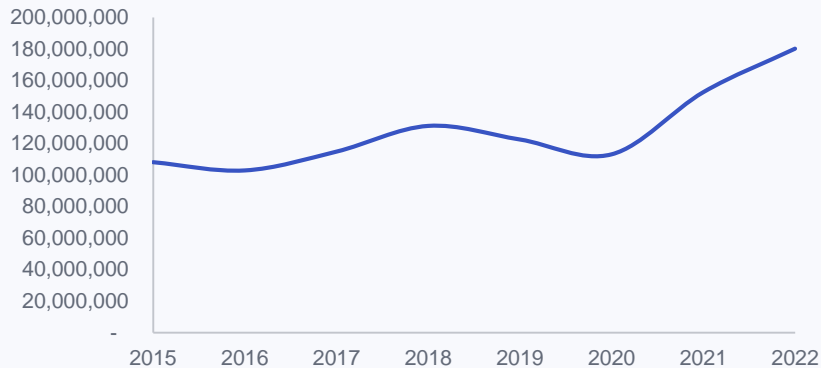
Top 3 Aluminum Producing Countries  
2022, Metric Tons



**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

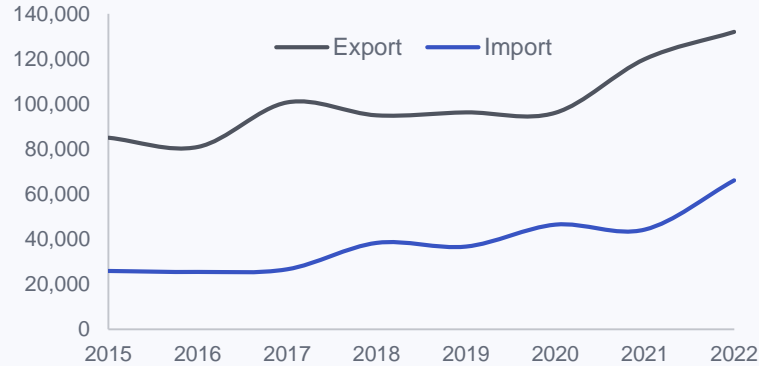
## Top 5 Exporters

-  China
-  Germany
-  USA
-  Canada
-  Russia

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

**\$3.5 Mln.**

### Set-Up Costs

Installation  
Construction  
Design

**\$800K**



## Operating and Other Variable Costs

*Percent of Sales*

### Raw Materials

**25%**

### Overheads, and variable costs (first 3 years)

**60%**

### Overheads, and variable costs (4<sup>th</sup> 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

**\$4.3 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>
<b>Sales (Local &amp; Global)</b>	\$ 2,860,000	\$ 4,404,400	\$ 6,921,200	\$ 13,668,666	\$ 18,616,054
<b>Raw Materials</b>	\$ 715,000	\$ 1,101,100	\$ 1,730,300	\$ 3,417,166	\$ 4,654,013
<b>Overheads &amp; Others</b>	\$ 1,716,000	\$ 2,642,640	\$ 4,152,720	\$ 5,467,466	\$ 7,446,421
<b>Depreciation</b>	\$ 233,333	\$ 233,333	\$ 233,333	\$ 233,333	\$ 233,333
<b>Rent</b>	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
<b>Initial Set-Up</b>	\$ 800,000	-	-	-	-
<b>Profit Before Tax</b>	\$ (854,333)	\$ 177,326	\$ 554,846	\$ 4,300,699	\$ 6,032,285
<b>Net Profit</b>	<b>(\$854,333)</b>	<b>\$141,861</b>	<b>\$443,877</b>	<b>\$3,440,559</b>	<b>\$4,825,828</b>



## Profitability Indicators

PP **4.97**  
*Years*

ROI **37%**  
*(5-year average)*

NPV **\$1.2 Mln.**  
*(5 years)*

IRR **22%**  
*(5 years)*

# Prices in Armenia are Competitive with Import Figures

## Imports | 2022

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

If we introduce a 20% margin of error to the cost calculations of the Armenian production, the price of manufacturing in Armenia would remain competitive at **5,100 USD per ton.**

## Armenia Production | Max Capacity

Total Costs	\$30,700,000
Total Weight (tons)	7200
<b>Cost per Ton</b>	<b>\$4,263</b>

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.

