



# 2022 Outlook Presentation

December 2022

Ace-tek 



濟南大自然新材料股份有限公司  
Jinan Acetate Chemical Co., LTD.

# AGENDA

1. Introduction
2. 3Q22 Results
3. Outlook
4. ESG/  
Sustainable Environment

# Jinan Acetate Chemical @ a Glance

- **Ticker:** 4763 TT
- **Market Cap – 8 December 2022:** NT\$11,878 mn
- **2021 Revenue:** NT\$2,715 mn
- **2022.1~11 Revenue:** NT\$3,868 mn
- **ROE:** Averaged 22% in 2017 through 2021
- **2021 & 1H2022 Cash Dividend:** NT\$5.5 & 4.7 per share
- **Business Scope:** Exports to more than 50 countries

## Jinan Acetate

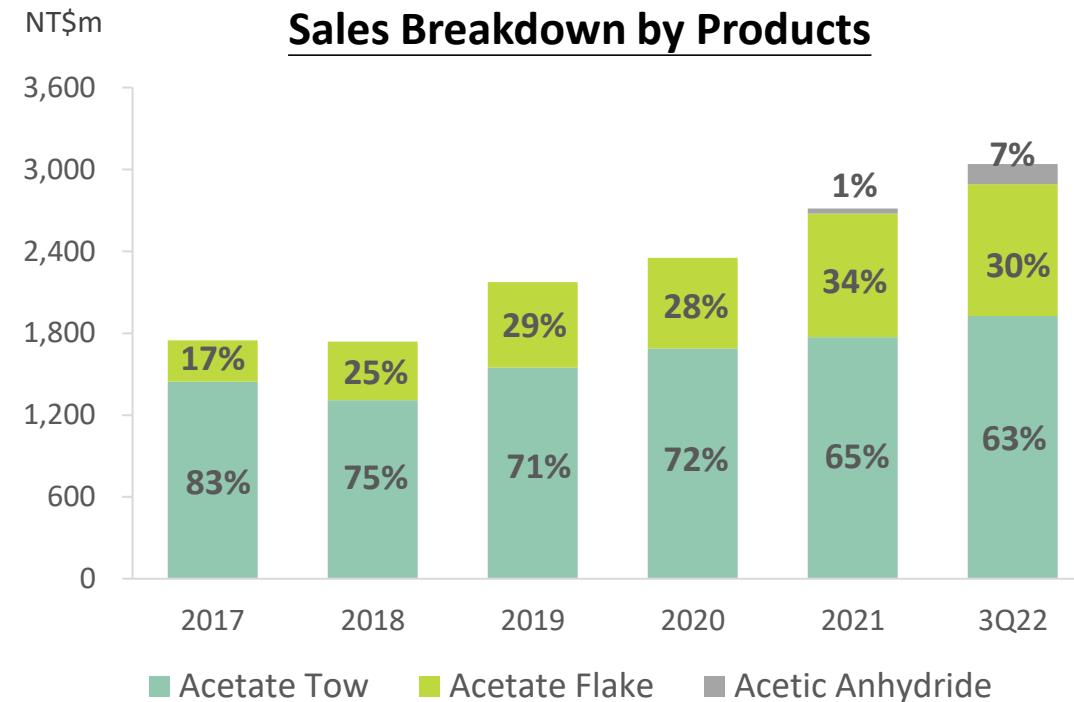


- Jinan, Shandong
- Acetate Tow Production
- Employees: 208

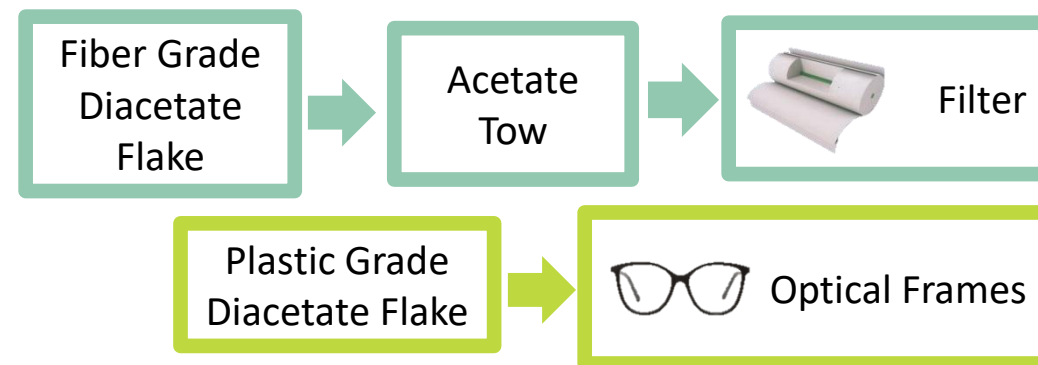
## Acetek Material



- Zaozhung, Shandong
- Acetate Flake Production
- Employees: 149



### Products - Applications



Acetic Anhydride plant has begun mass production  
Started selling some of our production externally in October 2021

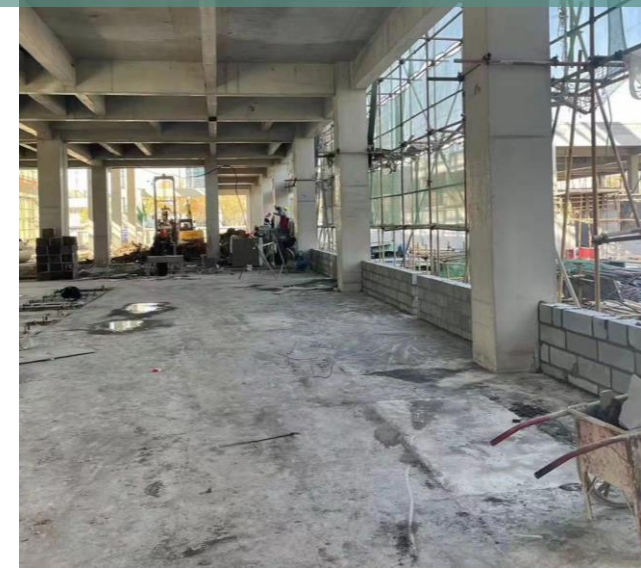
**Acetek Momentum Co., Ltd.**

Zaozhuang, Shandong.

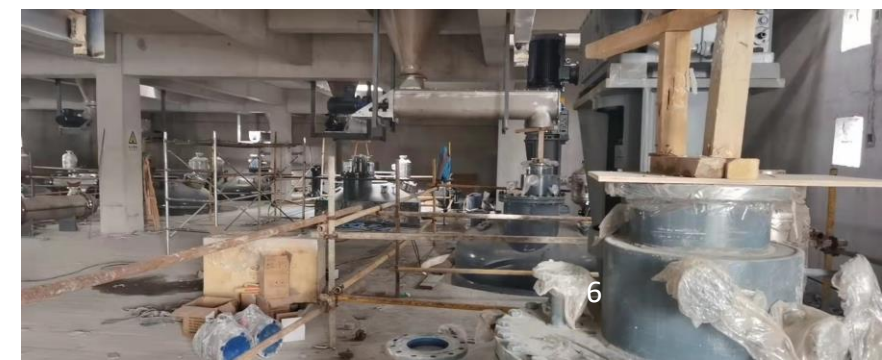
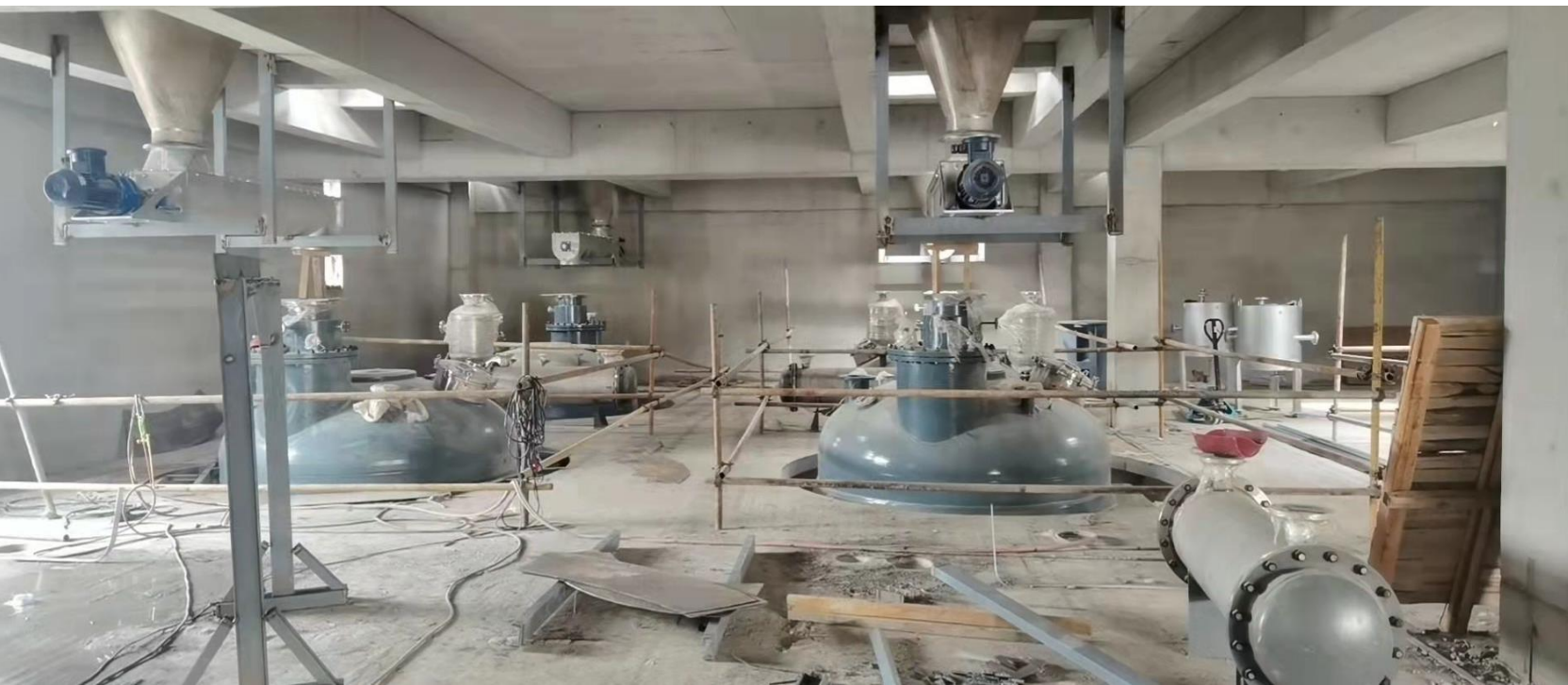
Employee size: 42



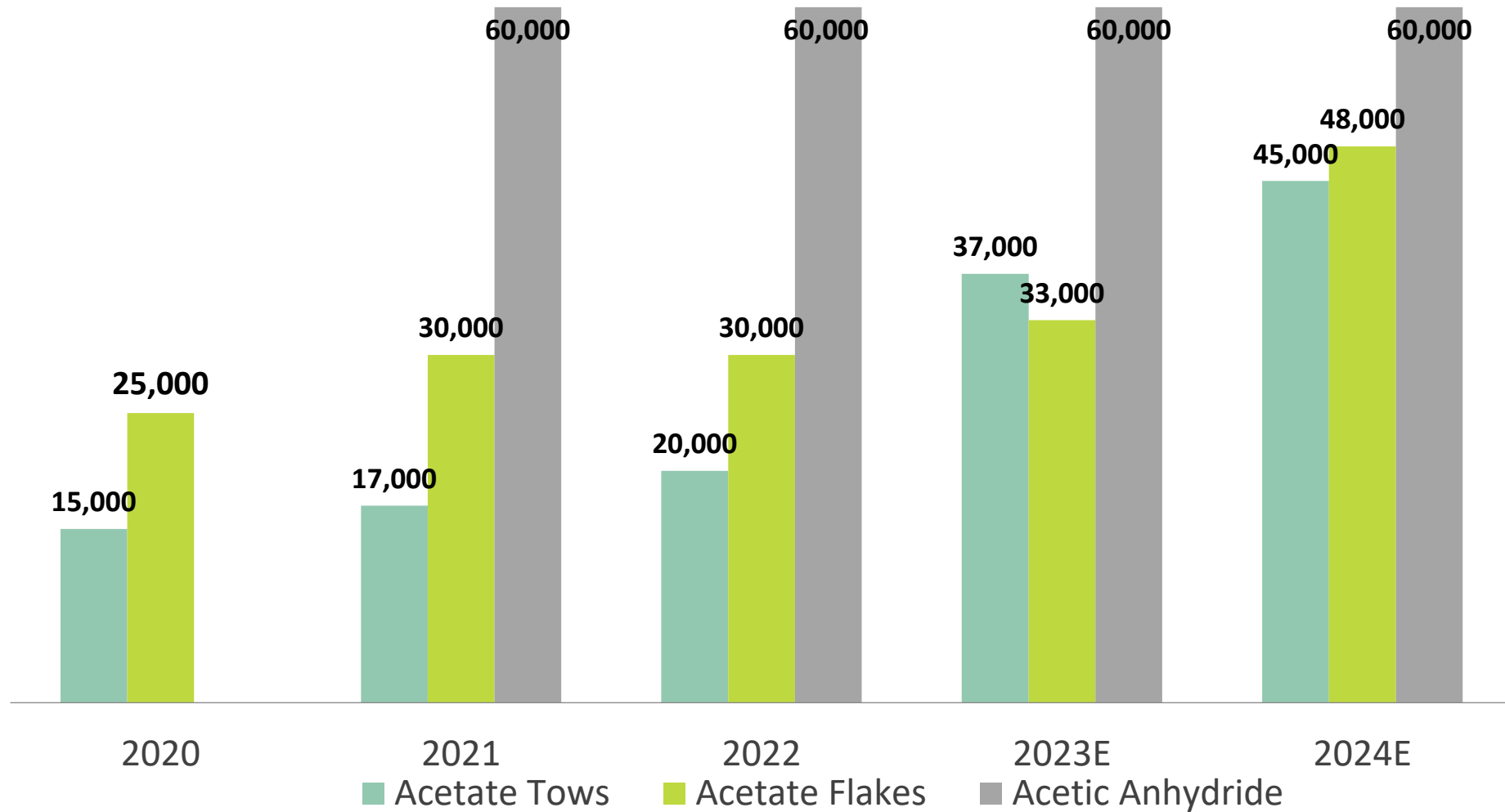
# Acetate(Shandong)Environmental Fiber Co.,Ltd. factory progress



# Acetate(Shandong)Environmental Fiber Co.,Ltd. factory progress(continued)



## Capacity Growth through New Lines and Debottleneck



Note: the capacity refers on this page is actual capacity.

# Key Highlights

## ✓ **The double-digit growth momentum expected to extend to next year**

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With strong demand and continuous capacity expansion, Optimistic about 2022 annual revenue reaching a new high. Revenue growth expected. Growing above industry average leads to market share gain and strengthens our position in the industry.

## ✓ **Structurally improved margins**

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With falling raw material costs, 3Q22 gross margin was around 39%, higher than the average level in the past five years of 28% due to vertical integration. Vertical integration into the production of acetic anhydride should improve our cost structure. We also continue to communicate with clients to further share the increase costs and to change to FOB prices. The substantial expansion of our production capacity over the past several years has helped Acetek achieve greater economies of scale. We expect 2022 core business profitability be better than 2021.

## ✓ **Taking advantage of the circular-economy opportunities while aiming to be more vertically integrated**

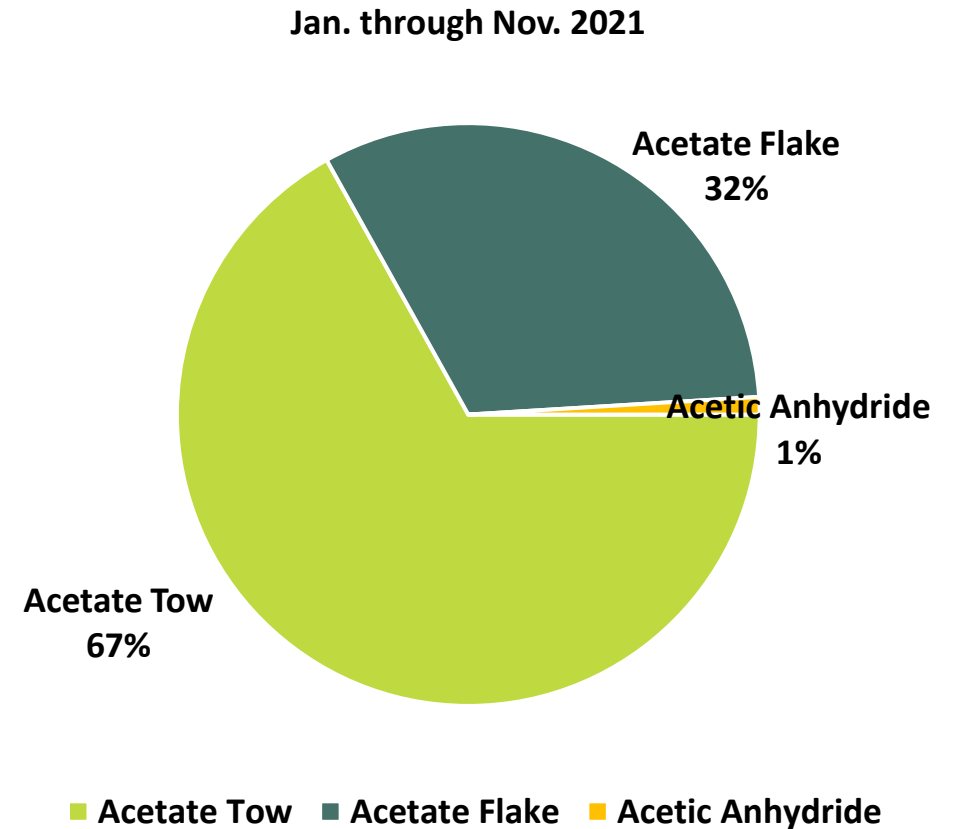
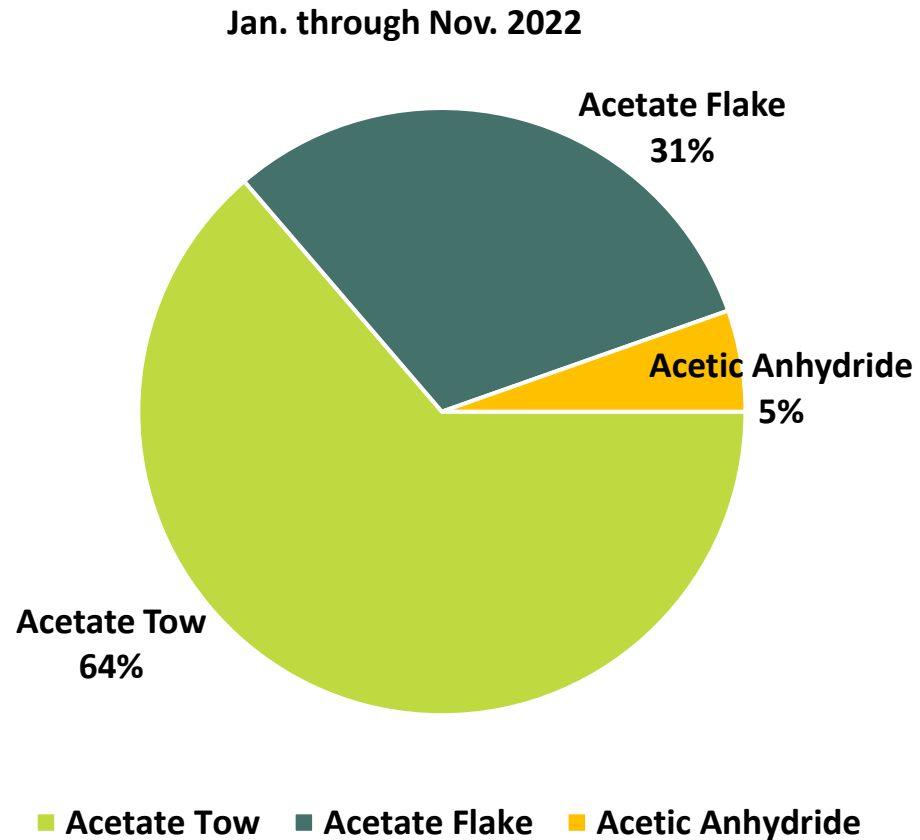
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We will increase investment in research and development of green, environmentally friendly materials. We see some encouraging preliminary results in the biodegradable fibers that we are developing. We are promoting the products and evaluating the investment for production expansion. We also aim to increase our exposure to alternative cigarette products and continue to look for opportunities to integrate vertically further.



# Sales Breakdown

Sales in the 2022 1~11 was **NT\$3,868 million**, better **59%** than 2021 1~11



## Key 3Q22 Performance Metrics

- ✓ Sales grew 87% YoY to NT\$11,96mn in 3Q22, reaching a record high for a single quarter.
- ✓ 3Q22 Tow sales grew 80% YoY and Acetate Flake sales grew 92% YoY.
- ✓ Key Performance Highlights were:
  - 3Q22 gross profit grew 144% YoY to NT\$461m.
  - 3Q22 gross margin was 38.6%, higher than the average of about 28% in the past five years.
  - Net profit was NT\$313m, and net profit margin was 26%.
  - Earnings per share were NT\$5.23.

## Key Observations

- ✓ The sales in the 3Q22 was due to the substantial in acetate tow revenue, and the demand for spinning-grade vinegar tablets and plastic-grade vinegar tablets for eyeglasses remained strong.
- ✓ Capacity expansion of 4,000 tons of tow to 20,000 tons per year.
- ✓ The construction of the acetic anhydride plant will be completed in September 2021, and the production will start in October and Shipping.
- ✓ In September 2021, the production capacity of acetate flakes will be increased by 5,000 tons, and the annual production capacity will be 30,000 tons.
- ✓ The gross profit margin rebounded in 3Q22, Because
  - The price of raw material acetic acid continued to decline, and the average price of acetic acid in the third quarter of 2022 was about RMB3,200/ton.
  - Adjust the selling price.
  - USD/RMB exchange rate continued to rise.

# Outlook for 2H22 – Expected to be Better than 1H22

## Acetate tow

2022.1~11 Tow sales grew 53% YoY. As the US and many European countries have started to ease down lockdown restrictions, duty-free shops affected by travel restrictions are expected to gradually recover, driving demand for tows. In addition, Tow is expected to continue to benefit from the trade war and changing geopolitical conditions. Due to the reordering of the global supply chain, the current material orders in 2022 have exceeded the existing production capacity. In order to meet customer demand, 4,000 tons of tow capacity has been added in March 2022, with an annual production capacity of 20,000 tons. The long-term trend of supply chain changes may be Hope to continue to support the growth.

## Acetate Flake

2022 .1~11 Flake revenues grew 54% YoY. Due to the expansion of tow production capacity by 4,000 tons in March this year, the priority is to supply the group's tow production. In addition, due to the gradual unblocking of European and American countries, the terminal demand for frames will remain strong, and due to the re-intensification of the trade war, the industrial chain restructuring situation has intensified. We are optimistic about the domestic demand for vinegar flakes in China, and the new production capacity of vinegar flakes has started mass production. Together with the new design capacity of 5,000 tons in 4Q21, the total designed annual production capacity of vinegar flakes will reach 30,000 tons. At present, the production capacity of vinegar tablets is fully loaded, and the price of some takeaways has increased.

## Acetic anhydride

Acetic anhydride revenue was stable in 2022.1~11, accounting for 5% of consolidated revenue. The new acetic anhydride plant has a designed production capacity of 60,000 tons. It was completed at the end of June 2021, and mass production began in September of the same year. In addition to reducing and stabilizing production costs for self-use, batch take-out has been started in October 2021.

## Sales Growth & Profitability

- Demand for tows and flakes is strong. Since the third quarter of last year, the product price adjustment with customers has been carried out. With the continuous increase in production capacity, the economic scale has been expanded, and upstream integration has been carried out. Optimizing the cost structure will help alleviate the pressure of rising costs such as raw materials and freight.
- All the world's four major tobacco manufacturers have become our customers, so it is expected to complete another 8,000 tons in March 2023 and 9,000 tons in April 2023. The production capacity of ton of tow has been expanded to meet the needs of the four major tobacco manufacturers. It is also expected to complete 3,000 tons of flakes capacity expansion in June 2023 and 15,000 tons in September 2024. In addition, the subsidiaries of Hubei China Tobacco and Henan China Tobacco have placed additional orders of 3,000 tons of spinning flakes, which will be delivered from the third quarter of this year. The orders for the company's flakes are full, and at the same time, the annual revenue and profit are guaranteed; Generally speaking, we are optimistic that the revenue in 2023 will reach a new high!

# Outlook - Cellulosic Granules

| 物性                                      | 測試方法     | 測試條件           | 單位                | 數據                   |
|---|----------|----------------|-------------------|----------------------|
| 密度 (Density)                            | ISO1183  |                | g/cm <sup>3</sup> | 1.29                 |
| 熱熔流動係數(MFR)                             | ISO1133  | 210°C/2.16g    | g/10min           | 9                    |
| 拉伸模量 (Tensile Modulus)                  | ISO527   |                | MPa               | 1,700                |
| 斷裂拉伸強度 (Tensile Strength at break)      | ISO527-2 | 5mm/min        | MPa               | 28                   |
| 斷裂應力延伸率 (Tensile strain at break)       | ISO527   | 5mm/min        | %                 | 17                   |
| 彎曲模量 (Flexural modulus)                 | ISO178   | 23°C           | MPa               | 1,800                |
| 彎曲強度 (Flexural modulus)                 | ISO178   | 23°C           | MPa               | 37                   |
| 缺口耐衝擊強度 (Izod impact strength, notched) | ISO179   | 23°C           | kJ/m <sup>2</sup> | 15                   |
| 表面阻抗                                    |          | 25°C<br>RH=65% | Ω                 | 1-5×10 <sup>11</sup> |

## Cellulosic Granules

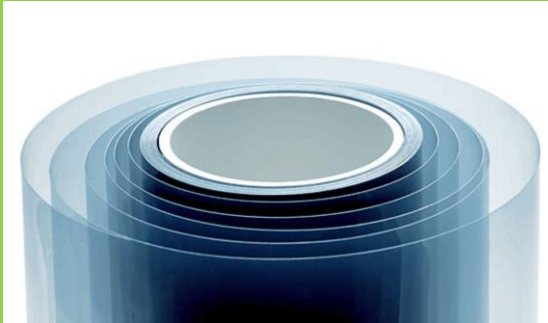
纖維素膠粒

- **Ready to process**
- **Good mechanical properties**  
Similar to engineering plastics ABS or PC
- **Widely used in thermoplastic forming processes**  
Example: injection molding, extrusion thermoplastic molding, tape casting, etc.
- **Bio carbon content 50%**
- **Replacing petrochemical-based plastics**



- Mechanical properties are similar to engineering plastics ABS or PC
- Manufactures transparent, rigid products with injection molding

### **Injection molding**



- Manufacture of sheets and thermoforming
- Used in the manufacture of rigid packaging materials

### **Extrusion molding**



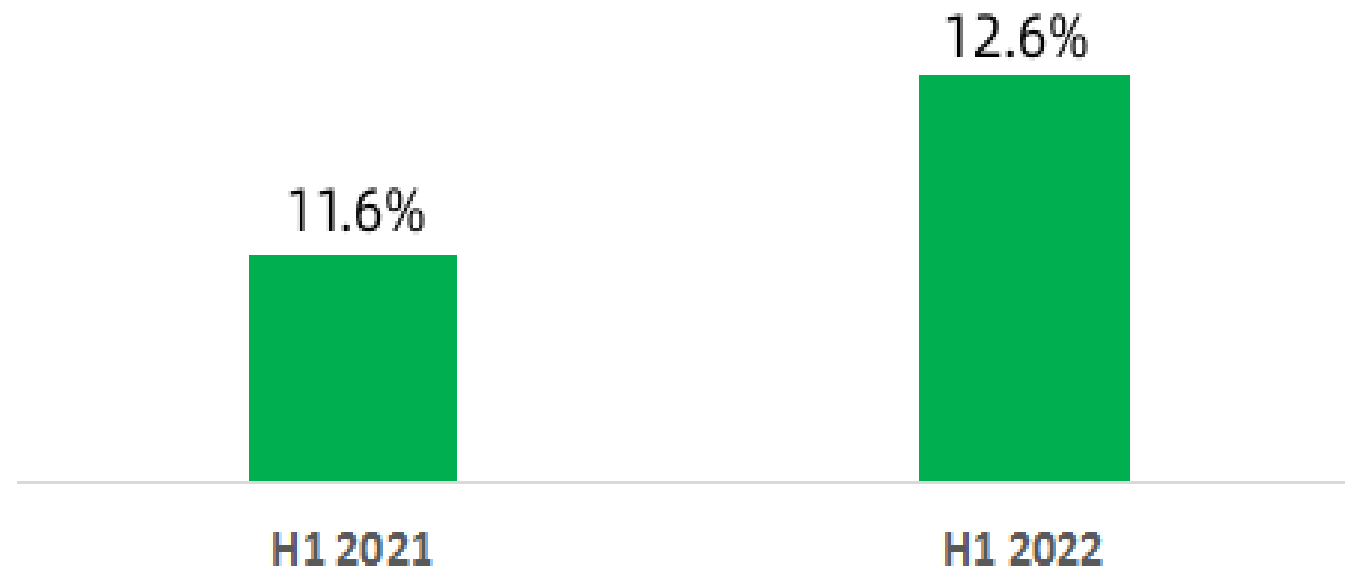
- Cast extrusion process to make films
- Flexible packaging material

### **Extrusion molding**

# HNB(IQOS) Prospects

- The output of H12021 heat-not-burn pods was about 35.7 billion, an increase of 11.6% over the same period last year.
- The output of H12022 heat-not-burn pods was about 40.2 billion, an increase of 12.6% over the same period last year.
- According to data from the PMI market research institute, heated tobacco units (HTU, Heated Tobacco Units) are the category with the highest user conversion rate among harm-reduced tobacco products, and the IQOS series of heated tobacco equipment and related pods are the largest market share in the multi-country heated tobacco market.

Source : PMI



HNB(IQOS)  
There are many stores  
in Taipei





## Outlook—Prospects of Cullulose Acetate

### To diversify product categories and expand the downstream customer base

- Acetate women's clothing continues to increase and brand advantage.
- Biodegradable use of consumer goods and packaging materials.
- New applications for electronic products (Including HNB and cooperation with first-tier mobile phone manufacturers).

### Construction Status and Investment Plan-Acetate Tow

- In the first quarter of 2022, the project will be approved by the local government.
- Land acquisition in the first quarter of 2022.
- Construction of the plant in the second half of 2022 is expected to start production in March 2023 with a capacity of 8,000 tons and an additional 9,000 tons in April of the same year
- The total investment is about 100 million RMB (plant + equipment).

## ✓ Environmental management

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Our company introduced and established the ISO14001 environmental management system, and passed the verification of the third-party Shanghai Ingle Certification Co., Ltd. in 2018, demonstrating its determination to spare no effort in environmental management. Among them, the cost of wastewater treatment and the cost of new and renovated environmental protection facilities are the most important, and these two items account for 97.7% of the environmental protection expenditure, which shows that the Company attaches great importance to environmental management.

## ✓ Water Resources and Wastewater Treatment

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Our company's recycled water volume in 2021 will reach 378,449 tons, accounting for 64.24% of the total annual water consumption; in the use of water resources, the water consumption in 2021 will drop significantly compared with the previous year, mainly due to the water storage of Jinan Acetate and Acetek Material. The measures are mature. Only when the amount of recycled water reaches the expected effect can the water consumption in the company's operations be effectively reduced.

## ✓ Raw material management/recycling

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Instructions for the recovery of acetic acid by Acetek Material : 30% dilute acid is produced in the production process of the finished product line of acetate, which is fed into the acetic acid recovery system. After filtration, extraction and rectification, 99.5% acetic acid is obtained into the storage tank, and enters the cellulose acetate as a raw material The production line is reused to reduce material consumption.

# ESG-Sustainable Environment

**DIN CERTCO**  
Gesellschaft für Konformitätsbewertung mbH


**REGISTRIERBESCHIED**

**Inhaber** JINAN ACETATE CHEMICAL CO., LTD  
 Room 409, Unit 2, Building 7  
 Shangang Xintiandi  
 No.61 Gongye South Road, Lixia District  
 Jinan City  
 250101 SHANDONG  
 CHINA

**Produkt** Kompostierbare Halbzeuge

**Typ, Modell** Diacetate

**Prüfgrundlage(n)** DIN EN 13432:2000-12  
 ASTM D 6400:2019-01  
 Zertifizierungsprogramm Produkte aus kompostierbaren Werkstoffen (2020-01)




**Konformitätszeichen**  

**Registernummer** 7H0157


**Gültig bis** 2027-04-30

**Nutzungsrecht** Mit diesem Registrierbescheid wird dem Inhaber ein Sondernutzungsrecht für Werbezwecke gemäß § 8 (5) der zugrundeliegenden Markensatzung und der Markenbenutzungsrichtlinie für das oben abgebildete Konformitätszeichen in Verbindung mit der genannten Registernummer erteilt.  
 Weitere Angaben siehe Anhang.


2021-04-01   
 Dipl.-Phys. Carlo Seiser  
 Leiter der Zertifizierungsstelle


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*Ministero dello Sviluppo Economico*


Ricevuta di presentazione  
 per  
 Brevetto per invenzione industriale



Domanda numero: 102022-██████-55  
 Data di presentazione: 11/11/2022

  
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Ricevuta di presentazione  
 per  
 Brevetto per invenzione industriale



Domanda numero: 102022-██████-52  
 Data di presentazione: 11/11/2022

- ESG-Sustainable Environment  
Photovoltaic power station

表 4-1 本项目屋顶光伏电站节能减排计算表

| 年限                               | 运行 25 年         |                |                 |                 | 年平均值          |               |               |                |
|----------------------------------|-----------------|----------------|-----------------|-----------------|---------------|---------------|---------------|----------------|
|                                  | 济南厂             | 孟玄厂            | 中峰厂             | 汇总              | 济南厂           | 孟玄厂           | 中峰厂           | 汇总             |
| 发电量<br>(万 kWh)                   | 1066.46         | 589.43         | 1382.90         | 3038.79         | 42.66         | 23.58         | 55.32         | 121.56         |
| 节省标煤<br>(吨)                      | 3476.67         | 1921.55        | 4508.25         | 9906.47         | 139.07        | 76.86         | 180.33        | 396.26         |
| 减排 SO <sub>2</sub><br>(吨)        | 319.94          | 176.83         | 414.87          | 911.64          | 12.80         | 7.07          | 16.59         | 36.46          |
| 减排 Nox<br>(吨)                    | 159.97          | 88.41          | 207.43          | 455.81          | 6.40          | 3.54          | 8.30          | 18.24          |
| <b>减排 CO<sub>2</sub><br/>(吨)</b> | <b>10632.62</b> | <b>5876.64</b> | <b>13787.49</b> | <b>30296.75</b> | <b>425.31</b> | <b>235.07</b> | <b>551.50</b> | <b>1211.88</b> |
| 减排碳粉尘<br>(吨)                     | 2900.77         | 1603.25        | 3761.48         | 8265.50         | 116.03        | 64.13         | 150.46        | 330.62         |

表 5-6 光伏电站寿命期内各厂区每年的发电量统计表

| 运行年份       | 济南厂光伏电站<br>发电量<br>(万 kWh) | 孟玄厂光伏电站<br>发电量<br>(万 kWh) | 中峰厂光伏电站<br>发电量<br>(万 kWh) | 汇总             |
|------------|---------------------------|---------------------------|---------------------------|----------------|
| 第 1 年      | 45.72                     | 25.27                     | 59.29                     | 130.28         |
| 第 2 年      | 45.45                     | 25.12                     | 58.94                     | 129.51         |
| 第 3 年      | 45.20                     | 24.98                     | 58.61                     | 128.79         |
| 第 4 年      | 44.94                     | 24.84                     | 58.28                     | 128.06         |
| 第 5 年      | 44.69                     | 24.70                     | 57.95                     | 127.34         |
| 第 6 年      | 44.43                     | 24.56                     | 57.62                     | 126.61         |
| 第 7 年      | 44.18                     | 24.42                     | 57.29                     | 125.89         |
| 第 8 年      | 43.93                     | 24.28                     | 56.96                     | 125.17         |
| 第 9 年      | 43.67                     | 24.14                     | 56.63                     | 124.44         |
| 第 10 年     | 43.42                     | 24.00                     | 56.30                     | 123.72         |
| 第 11 年     | 43.16                     | 23.86                     | 55.97                     | 122.99         |
| 第 12 年     | 42.91                     | 23.72                     | 55.64                     | 122.27         |
| 第 13 年     | 42.66                     | 23.58                     | 55.32                     | 121.56         |
| 第 14 年     | 42.40                     | 23.44                     | 54.99                     | 120.83         |
| 第 15 年     | 42.15                     | 23.30                     | 54.66                     | 120.11         |
| 第 16 年     | 41.90                     | 23.16                     | 54.33                     | 119.39         |
| 第 17 年     | 41.64                     | 23.02                     | 54.00                     | 118.66         |
| 第 18 年     | 41.39                     | 22.88                     | 53.67                     | 117.94         |
| 第 19 年     | 41.13                     | 22.73                     | 53.34                     | 117.20         |
| 第 20 年     | 40.88                     | 22.59                     | 53.01                     | 116.48         |
| 第 21 年     | 40.63                     | 22.45                     | 52.68                     | 115.76         |
| 第 22 年     | 40.37                     | 22.31                     | 52.35                     | 115.03         |
| 第 23 年     | 40.12                     | 22.17                     | 52.02                     | 114.31         |
| 第 24 年     | 39.86                     | 22.03                     | 51.69                     | 113.58         |
| 第 25 年     | 39.61                     | 21.89                     | 51.36                     | 112.86         |
| <b>总计</b>  | <b>1066.46</b>            | <b>589.43</b>             | <b>1382.90</b>            | <b>3038.79</b> |
| <b>平均值</b> | <b>42.66</b>              | <b>23.58</b>              | <b>55.32</b>              | <b>121.56</b>  |

# Our 5-Year Targets



**01**

**Expand our global market share in acetate tows to 5%**

**02**

**Be an industry leader in the development of biodegradable acetate flakes, and recyclable acetate flakes for optical frames, aiming to take advantage of circular-economy opportunities**

**03**

**Sustain ROE in excess of 20%**

**04**

**Continue to perform well and strengthen the commitment and practice of environmental sustainability**

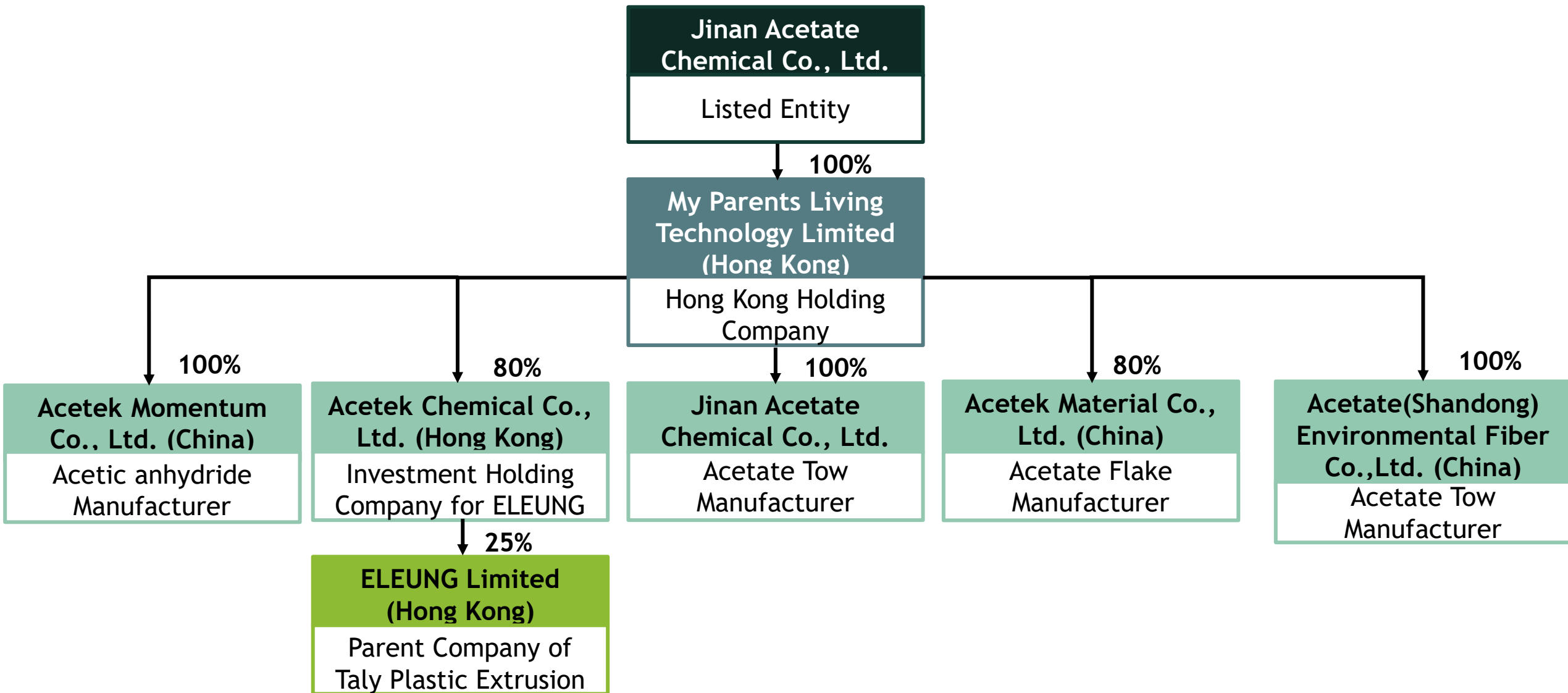
# Appendix



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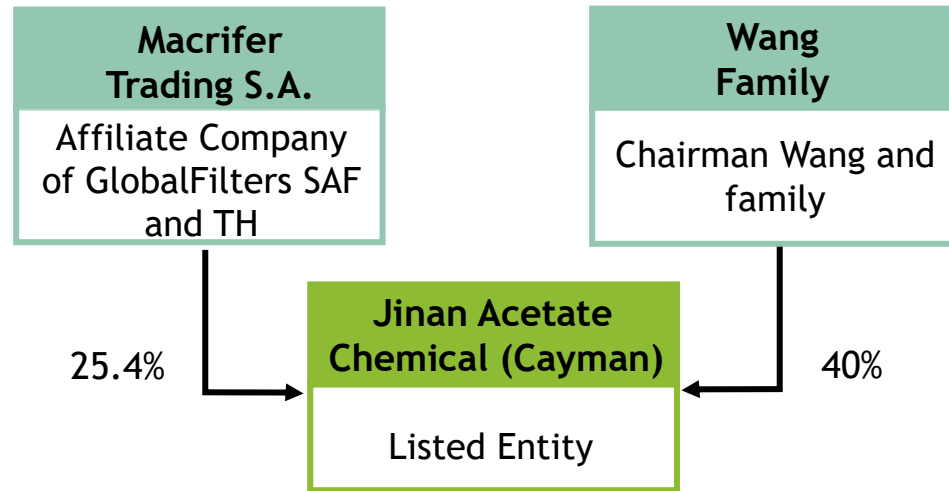
济南大自然新材料有限公司

# Jinan Acetate Chemical Corporate Structure



# Acetate Tow Strategic Alliances

## Marketing & Distribution Strategic Alliances



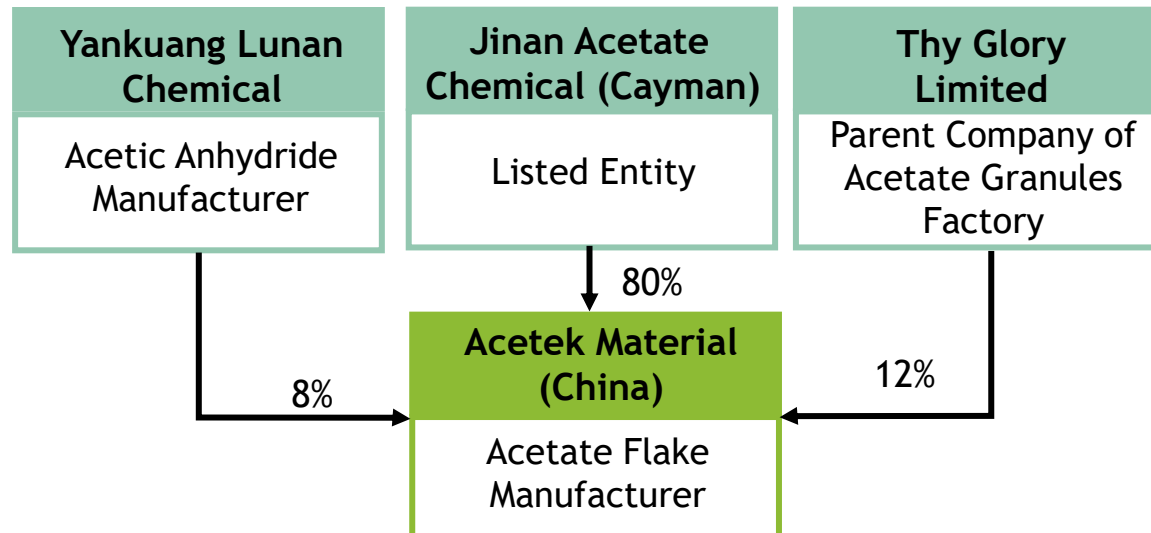
### ✓ South America Market:

The owner of Macrifer owns GlobalFilters and Tabacalera Hernandarias (TH). GlobalFilters is the largest cigarette filter producer in South America. TH is a Top 5, branded cigarette producer in South America. Both are customers of Acetek.

### ✓ Market Expansion:

GlobalFilters is expanding geographically and will begin production in Argentina and Miami, Florida (USA) in 2020. TH is developing products for Asia and the Middle East.

## Vertical Integration Strategic Alliances



### ✓ Upstream:

Yankuang Lunan, an upstream supplier of acetic anhydride, contributed the land on which Acetek Material is built.

### ✓ Downstream:

Thy Glory owns an acetate granules factory which is Acetek's customer.

### ✓ Vertical Integration – 100% self-sufficient in flakes for tow:

70% of the acetate flake that Acetek Material produces is supplied to Jinan Acetate for production of acetate tow.



# Plastic Grade Flake Strategic Alliances

## ✓ Strike Alliances with Downstream Acetate Granule and Plate Manufacturers

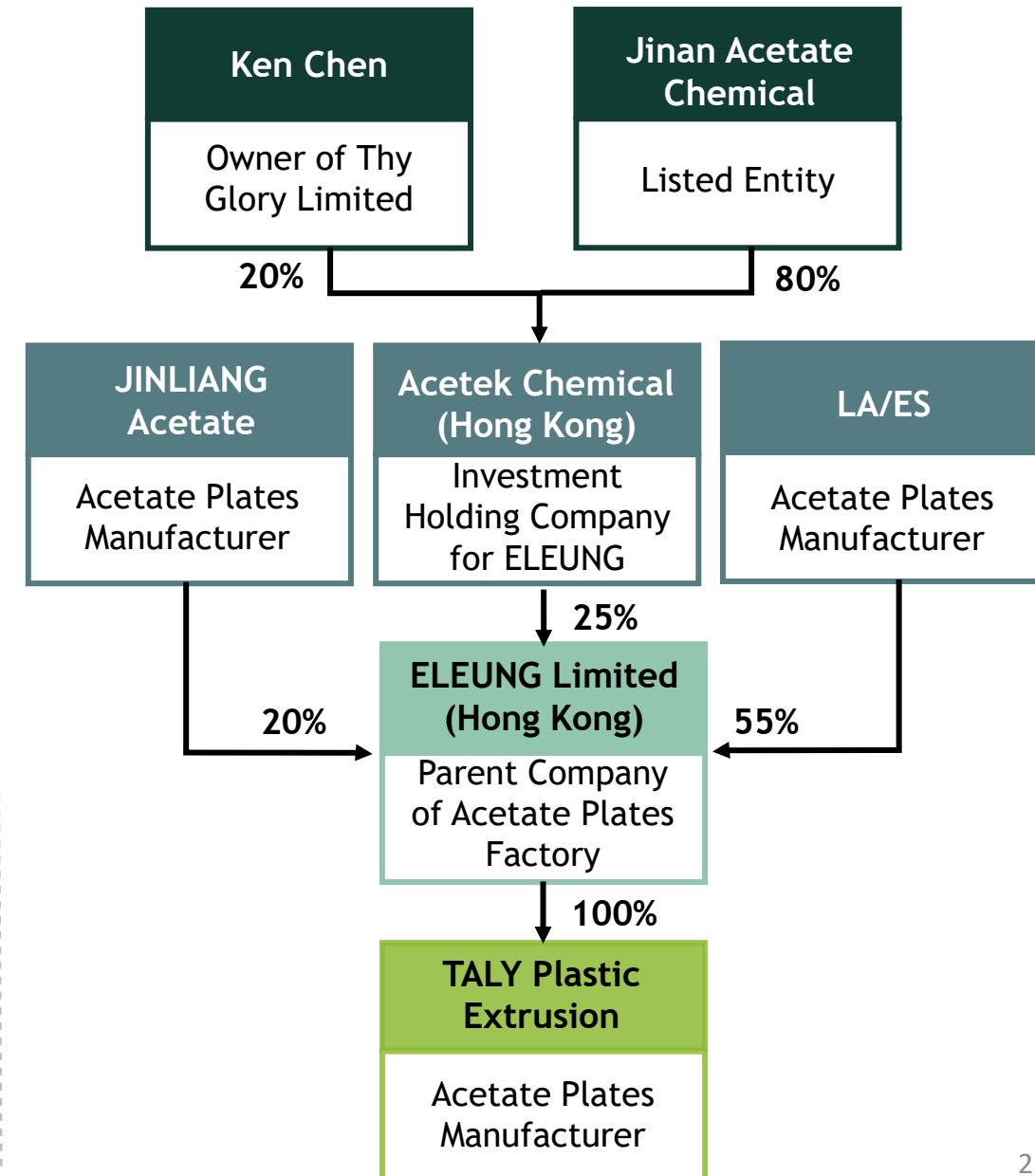
Thy Glory, JINLIANG, and TALY are cellulose acetate plate and granules manufacturers. All are downstream customers of Acetek's plastic grade acetate flake.

## ✓ Access to Tier 1 Suppliers to Luxury Optical Frame Brands

LA/ES is a strategic partner of Acetek. It supplies cellulose acetate plates to Luxottica and Safilo, who between them hold a dominant market share for all luxury optical frame brands. Luxottica's share amongst luxury optical frame and sunglasses brands is 80%. Safilo is the No. 2 player.

## ✓ Order Commitments

70% of granules Taly buys are made from Acetek flake.



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