福莱新材 Zhejiang Fulai New Material (605488 CH)

功能性涂布复合材料龙头，柔性传感器前景广阔

Leading enterprise in functional coating composite materials, with broad prospects for flexible sensors

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热点速评 Flash Analysis

(Please see APPENDIX 1 for English summary)

- **公司是功能性涂布复合材料领域的领先企业，广告喷墨打印材料是公司营业收入的主要来源。**1）公司为国内喷墨打印复合材料行业首家实现基膜、胶水、涂布一体化的企业，产品主要分为广告喷墨打印材料、标签标识印刷材料、电子级功能材料、新型薄膜材料、胶粘材料等工业消费品及高端智能装备。2）功能性涂布复合材料制造行业近年来受到政府的多个政策鼓励，同时，新材料行业属于国家重点扶持和发展的战略性新兴产业，下游印刷、包装、消费电子、汽车电子等行业也同样受到国家的政策鼓励和扶持。3）公司为国内广告喷墨打印材料的龙头企业，在广告喷墨打印材料行业已基本完成进口替代。2024 年半年报显示公司广告喷墨打印材料实现营业收入 6.27 亿元，占公司营业总收入的 48.31%，同比增加 10.73%。

- **公司拥有强大的技术研发与产品创新优势，其中柔性传感器在机器人领域应用前景广阔。**1）福莱新材积极投身柔性传感器研发与应用探索，目前正在进行中试线的搭建。面对具身智能市场的巨大潜力，面向大客户的定制化研究开发将作为柔性传感器应用的重点攻克方向。2）柔性传感器是一个新的前沿技术领域，在万物互联的时代未来具有广泛的应用场景，从公司当前的整体定位去看，主要有以下几个方向：人形机器人电子皮肤的应用、工业检测应用智能穿戴、健康监测等领域。公司同部分灵巧手公司在合作开发，随着中试产线搭建，为和机器人主机厂的对接提供了硬件上的支持。3）公司基于柔性传感器的主流方向，已经部署了相关技术路线的专利池，目前选择的主要技术路线是电阻式。电阻式传感器信号采集具有较好的稳定性，受干扰的程度较小；从产业化落地角度来看，使用涂布工艺成本更具有性价比。

- **公司积极扩大产品产能，预计新增广告喷墨打印材料产能 49.69%，新增标签标识印刷材料产能 34.72%。**1）烟台分公司新型材料项目一期拟投资建成年产 4 亿平方米广告喷墨打印材料生产线；二期拟投资生产 5 万吨 PVC 膜、2 亿平方米新能源车身贴及 5,000 万平方米环保防水背胶 PP 等产品。2）烟台富利新型新材料（一期）项目第一条产线已于 2023 年 7 月顺利投产，目前已达到设计产能 5 万吨 BOPP 功能薄膜；第二条产线目前已经完成设备安装与调试，进入试生产阶段，设计年产能约 5 万吨 BOPP 功能薄膜。3）公司近期收到高达 1.65 亿的补偿款。这一资金注入极大优化公司财务结构，充实现金流储备，增强财务稳健性，使公司在战略规划与市场竞争中更具灵活性与抗风险能力。

- **风险提示：**市场竞争加剧的风险；原材料价格波动的风险；行业周期波动的风险。

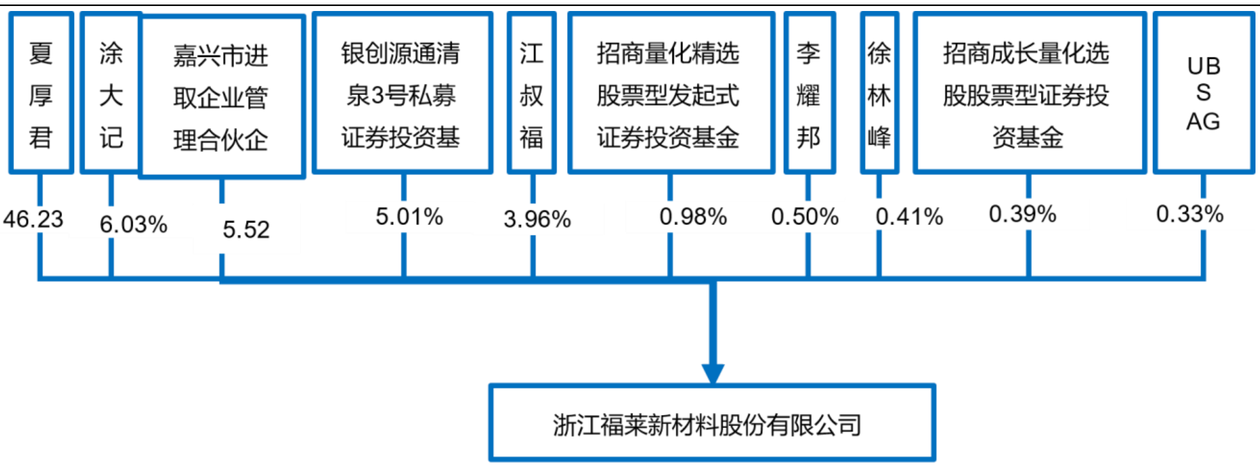
一、公司是功能性涂布复合材料领域的领先企业。广告喷墨打印材料是公司营业收入的主要来源。

自公司成立以来，一直深耕功能性涂布复合材料的研发、生产、销售，利用涂布及复合工艺技术，将吸墨材料、压敏胶、导电材料等与高分子薄膜材料复合而成，使材料具有吸墨、粘结、保护、导热、导电、绝缘等特定功能，产品广泛应用于广告宣传品打印、标签标识及消费电子和汽车电子领域。

根据公司财务报表，2021-2023 年，公司营业收入分别为 17.15 亿元、19.01 亿元和 21.31 亿元，归母净利润分别为 3.29 亿元、2.43 亿元和 1.90 亿元。截至 2024 年第三季度，公司实现营业收入 17.76 亿元。2024 年第三季度同比增长 4.51%；同期公司归母净利润为 0.07 亿元，同比减少 62.02%。公司广告喷墨打印材料、标签标识印刷材料、功能基膜营业收入分别为 6.27、3.30、2.25 亿元，分别占总收入的 48.31%、25.43%、17.38%。

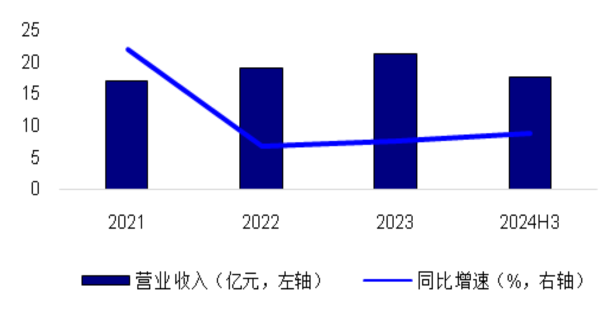
公司股权结构较为集中，夏厚君为公司实际控制人。截至 2024 年第三季度，本公司最终实际控制方夏厚君持有公司 46.23%股份。

图 1 股权结构图（截至 2024 年中报）



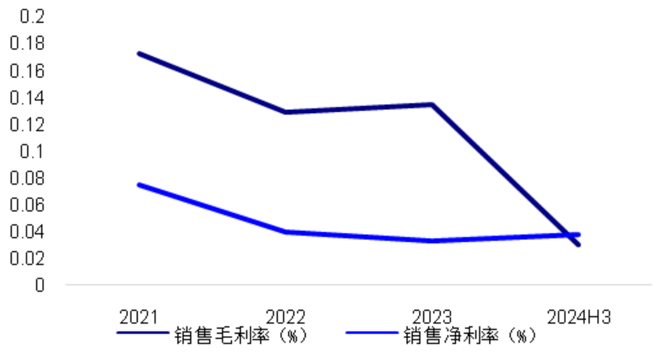
资料来源：福莱新材 2024 年中报，海通国际整理

图 2 公司 2021-2024H3 年营业收入与同比增速



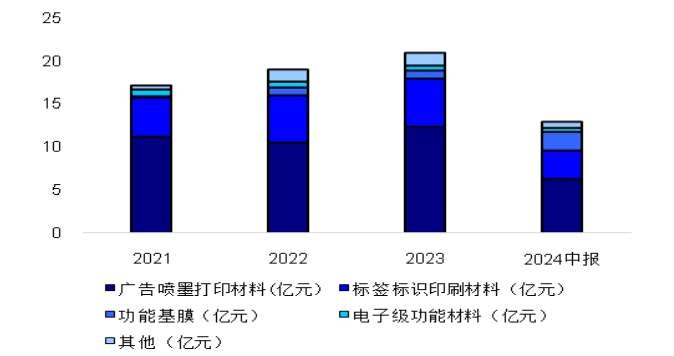
资料来源：iFinD 金融终端，海通国际整理

图 3 公司 2021-2024H3 年销售毛利率和净利率



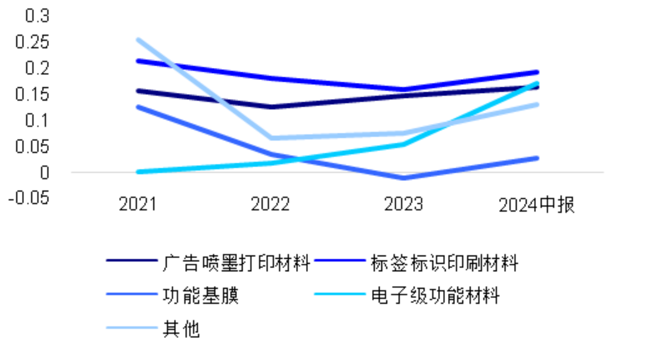
资料来源：iFinD 金融终端，海通国际整理

图 4 公司 2021-2024H3 年营业收入结构



资料来源：iFinD 金融终端，海通国际整理

图 5 公司 2021-2024H3 年分业务毛利率



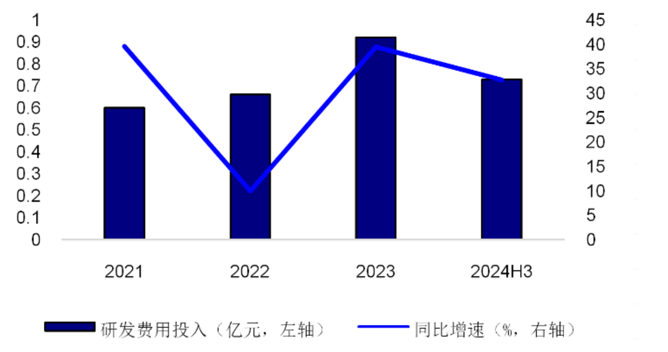
资料来源：iFinD 金融终端，海通国际整理

二、公司拥有强大的技术研发与产品创新优势，其中柔性传感器在机器人领域应用前景广阔。

公司在胶粘层的高分子聚合物结构设计、功能性添加剂的选择与使用、涂液配制工艺与配制环境控制、产品精密涂布、涂层微观结构设计与实现、多功能涂布复合材料应用领域开发等方面积累了丰富的行业经验。报告期内，新增专利 24 项，其中发明专利 15 项，新增软件著作权 1 件；截止报告期末，累计获授权专利 92 项，其中发明专利 56 项，软件著作权 8 项，共计有 100 个新产品（项目）完成了省级新产品试制计划项目验收、省级工业新产品（新技术）鉴定（验收）、浙江省重点技术创新专项、浙江省重点高新技术产品验收。报告期内，公司通过森林认证 FSC、GRS(Global RecycledStandard 全球回收标准)认证、质量管理体系认证（ISO9001）、环境管理体系认证和中国职业健康安全管理体系认证。除此之外，截止报告期末，公司已通过航空业质量管理体系认证、企业知识产权管理体系认证和能源管理体系认证。

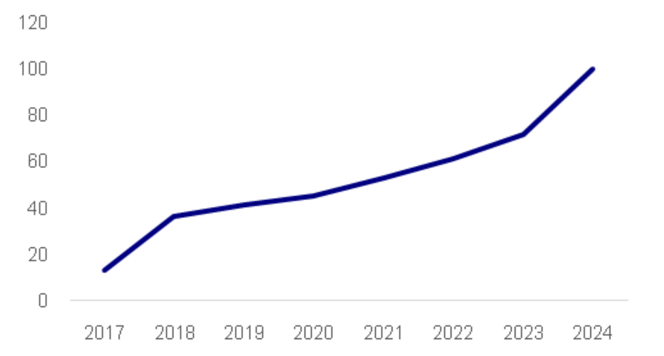
柔性传感器是一种由柔软材料制成的传感器，可以弯曲、拉伸或变形并仍然正常工作，用于检测不规则表面或动态结构的压力、温度和形变等，在万物互联的时代未来具有广泛的应用场景。从公司当前的整体定位来看，主要有以下几个方向：人形机器人电子皮肤的应用、工业检测应用智能穿戴、健康监测等领域。公司柔性传感器相关产品从 2017 年开始研究，于 2018 年申请了温度、压力相关的三项传感器方面的专利，2023 年 7 月开始做产业立项规划，目前正在进行中试线的搭建，预计耗时 3 个月左右。其具有可复制性，可以满足可能的市场需求，同时中试产线在其他应用领域的研究、开发、验证同步进行。公司同部分灵巧手公司建立了合作开发关系，并随着中试产线的搭建，为和机器人主机厂的对接提供了硬件上的支持。

图 6 公司 2021-2024H3 研发费用投入



资料来源：iFinD 金融终端，海通国际整理

图 7 公司 2013-2024 年专利申请数



资料来源：iFinD 金融终端，海通国际整理

三、产能扩张战略与产品多元化布局有效巩固市场地位。

2023 年公司主要产品产能有一定提升，产销量保持增长。公司“福莱森特”喷绘耗材被认定为“浙江名牌产品”，在细分领域仍具有一定市场认可度。截至 2023 年末，公司广告喷墨打印材料及标签标识印刷材料生产能力分别达到 8.05 亿、7.20 亿平方米/年，产能规模有所扩大，在喷墨打印材料细分行业具有一定规模优势。且主要产品的产能利用率维持高水平，产销量整体保持增长，广告喷墨打印材料及标签标识印刷材料产能利用率分别为 97.05%、95.19%，产销率分别为 97.69%、99.93%。受益于国内经济与消费回暖，广告业呈现复苏态势，市场需求得到释放。

根据福莱新材募集资金投资项目核查意见，烟台分公司福莱新型材料项目一期用地面积约 100 亩，拟投资建成年产 4 亿平方米广告喷墨打印材料生产线；二期用地面积约 58 亩，拟投资生产 5 万吨 PVC 膜、 2 亿平方米新能源车身贴及 5,000 万平方米环保防水背胶 PP 等产品。烟台富利投产建设项目一期第一条产线已于 2023 年 7 月顺利投产，设计年产能约 5 万吨 BOPP 功能薄膜，目前已达到设计产能；一期项目第二条产线目前已经完成设备安装与调试，进入试生产阶段，设计年产能约 5 万吨 BOPP 功能薄膜。；二期两条年产 4.6 万吨 PETG 线，第一条产线正在积极建设中。规模化生产有利于提高设备利用率和产能利用率，实现量产增效，有助于公司在产业链、规模化、生产管理效率等方面优势进一步凸显。

根据公司 2025 年 1 月 18 日发布的公告，公司因园区改造获得厂房搬迁补偿，补偿款高达 1.65 亿元。这一资金注入极大优化公司财务结构，充实现金流储备，增强财务稳健性，使公司在战略规划与市场竞争中更具灵活性与抗风险能力。

表 1 公司 2024 年主要产品产能及在建产能情况

产品	已有产能	在建产能	单位	备注
广告喷墨打印材料	8.05	4.00	亿平方米/年	一期建设期为 2 年，预计 2024 年四季度投产；二期建设期为 2 年，预计 2025 年二季度投产。
标签标识印刷材料	7.20	2.50	亿平方米/年	/
电子级功能材料	0.33	0.41	万吨/年	/
功能基膜	2.50	10	亿平方米/年	第一条产线已于 2023 年 7 月顺利投产，第二条产线目前已经完成设备安装与调试，进入试生产阶段。

资料来源：福莱新材 2024 年跟踪评级报告，海通国际整理

APPENDIX 1

Summary

The company is a leading enterprise in the field of functional coating composite materials, and advertising inkjet printing materials are the main source of the company's operating income. 1) The company is the first enterprise in the domestic inkjet printing composite materials industry to achieve the integration of base film, glue, and coating. Its products mainly include advertising inkjet printing materials, label identification printing materials, electronic grade functional materials, new film materials, adhesive materials and other industrial consumer goods, as well as high-end intelligent equipment. 2) In recent years, the manufacturing industry of functional coated composite materials has been encouraged by multiple government policies. At the same time, the new materials industry is a strategic emerging industry that is supported and developed by the state. Downstream industries such as printing, packaging, consumer electronics, and automotive electronics have also been encouraged and supported by national policies. 3) The company is a leading enterprise in the domestic advertising inkjet printing material industry, and has basically completed import substitution in the advertising inkjet printing material industry. The 2024 semi annual report shows that the company's advertising inkjet printing materials achieved a operating income of 627 million yuan, accounting for 48.31% of the company's total operating income, an increase of 10.73% year-on-year.

The company has strong advantages in technology research and product innovation, among which flexible sensors have broad prospects for application in the field of robotics. 1) Fulai New Materials actively engages in the research and application exploration of flexible sensors, and is currently building a pilot line. Faced with the enormous potential of the embodied intelligence market, customized research and development for large customers will be the key direction to overcome in the application of flexible sensors. 2) Flexible sensors are a new cutting-edge technology field with a wide range of application scenarios in the era of the Internet of Things. From the current overall positioning of the company, there are mainly the following directions: the application of humanoid robot electronic skin, industrial detection application intelligent wearables, health monitoring and other fields. The company is collaborating with some dexterous hand companies on development, and with the construction of the pilot production line, hardware support has been provided for docking with robot host factories. 3) The company has deployed a patent pool for related technology routes based on the mainstream direction of flexible sensors, and the main technology route currently chosen is resistive. The signal acquisition of resistive sensors has good stability and is less affected by interference; From the perspective of industrialization, using coating technology is more cost-effective.

The company is actively expanding its product production capacity, with an expected increase of 49.69% in advertising inkjet printing material production capacity and 34.72% in label and identification printing material production capacity. 1) The first phase of the new materials project of Yantai Branch plans to invest in building a production line for advertising inkjet printing materials with an annual output of 400 million square meters; The second phase plans to invest in the production of 50,000 tons of PVC film, 200 million square meters of new energy vehicle body stickers, and 50 million square meters of environmentally friendly waterproof adhesive PP and other products. 2) The first production line of Yantai Fuli New Materials (Phase I) project has been successfully put into operation in July 2023, and the designed production capacity of 50,000 tons of BOPP functional film has been reached; The second production line has completed equipment installation and commissioning and entered the trial production stage. The designed annual production capacity is about 50,000 tons of BOPP functional film. 3) The company has recently received compensation of up to 165 million yuan. This capital injection greatly optimizes the company's financial structure, enriches cash flow reserves, enhances financial stability, and makes the company more flexible and risk resistant in strategic planning and market competition.

Risks: Risk of intensified market competition; risk of fluctuations in raw material prices; risk of industry cycle fluctuations.

附录 APPENDIX

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分析师股票评级

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中性，未来 12-18 个月内预期相对基准指数变化不大，基准定义如下。根据 FINRA/NYSE 的评级分布规则，我们会将中性评级划入持有这一类别。

弱于大市，未来 12-18 个月内预期相对基准指数跌幅在 10%以上，基准定义如下

各地股票基准指数：日本 – TOPIX, 韩国 – KOSPI, 台湾 – TAIEX, 印度 – Nifty100, 美国 – SP500; 其他所有中国概念股 – MSCI China.

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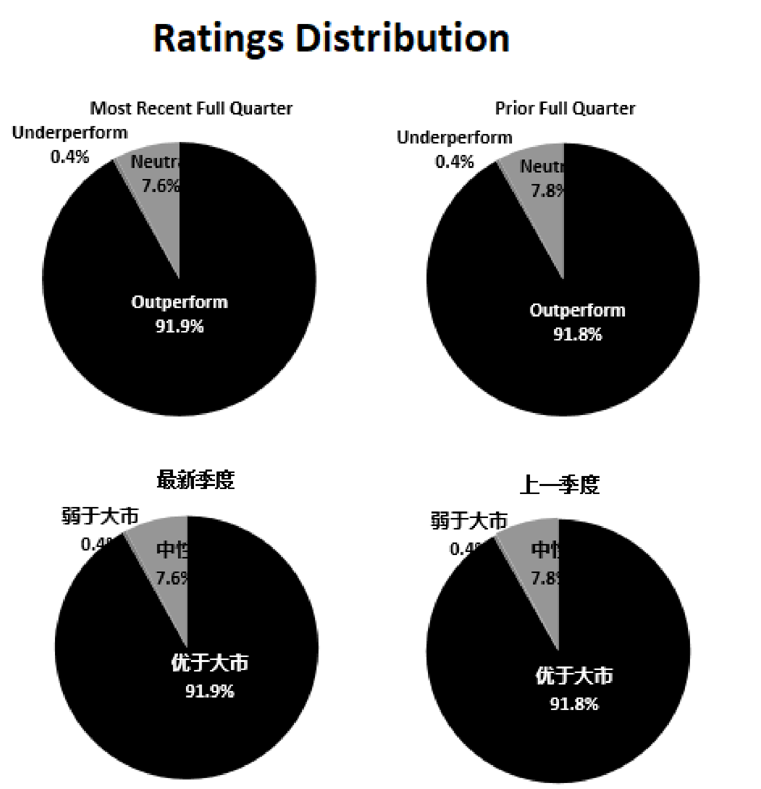
Analyst Stock Ratings

Outperform: The stock’s total return over the next 12-18 months is expected to exceed the return of its relevant broad market benchmark, as

评级分布 Rating Distribution



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Neutral: The stock's total return over the next 12-18 months is expected to be in line with the return of its relevant broad market benchmark, as indicated below. For purposes only of FINRA/NYSE ratings distribution rules, our Neutral rating falls into a hold rating category.

Underperform: The stock's total return over the next 12-18 months is expected to be below the return of its relevant broad market benchmark, as indicated below.

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截至 2024 年 12 月 31 日海通国际股票研究评级分布

	优于大市	中性 (持有)	弱于大市
海通国际股票研究覆盖率	91.9%	7.6%	0.4%
投资银行客户*	2.1%	2.2%	0.0%

*在每个评级类别里投资银行客户所占的百分比。

上述分布中的买入，中性和卖出分别对应我们当前优于大市，中性和落后大市评级。

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此前的评级系统定义（直至 2020 年 6 月 30 日）：

买入，未来 12-18 个月内预期相对基准指数涨幅在 10%以上，基准定义如下

中性，未来 12-18 个月内预期相对基准指数变化不大，基准定义如下。根据 FINRA/NYSE 的评级分布规则，我们会将中性评级划入持有这一类别。

卖出，未来 12-18 个月内预期相对基准指数跌幅在 10%以上，基准定义如下

各地股票基准指数：日本 – TOPIX, 韩国 – KOSPI, 台湾 – TAIEX, 印度 – Nifty100; 其他所有中国概念股 – MSCI China.

Haitong International Equity Research Ratings Distribution, as of December 31, 2024

	Outperform	Neutral (hold)	Underperform
HTI Equity Research Coverage	91.9%	7.6%	0.4%
IB clients*	2.1%	2.2%	0.0%

*Percentage of investment banking clients in each rating category.

BUY, Neutral, and SELL in the above distribution correspond to our current ratings of Outperform, Neutral, and Underperform.

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Previous rating system definitions (until 30 Jun 2020):

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SELL: The stock's total return over the next 12-18 months is expected to be below the return of its relevant broad market benchmark, as indicated below.

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