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Plastics Industry

2024 塑料行业——菜格技术创新奖 Ringier Technology Innovation Awards



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#### 郑垲, 中国合成树脂协会理事长

毕业于北京化工大学,多年来从事工程塑料开发与市场研究工作,对于国内外的应用与发展状况有比较深入的研究。曾任北京市化工研究院科研生产办公室、经营办公室副主任、主任;美国通用电气公司塑料部北京服务中心经理;北京泛威工程塑料有限公司经营部长;国家通用工程塑料工程技术研究中心副主任;中国工程塑料工业协会秘书长。



#### 吴大鸣 博士,北京化工大学机电工程学院教授、博士生导师,俄罗斯工程院外籍院士

1982 年北京化工大学本科毕业,1992年毕业于莫斯科化工机械学院获 Ph.D 学位,2022 年当选俄罗斯工程院外籍院士,1992 年至今在北京化工大学任教。现为北京化工大学机电工程学院教授、博士生导师。现任中国塑料机械工业协会专家委员会主任,中国塑料加工工业协会专家委员会副主任。主要研究方向:聚合物精密挤出成型原理及装备、聚合物微纳制造原理及装备、高性能导电/导热复合材料制备方法等。主持国家及省部级科技项目 20 余项,与企业间科技项目 50 余项。发表科技论文320余篇,SCI、EI 收录70余篇,获国家专利60余项;获国家科技进步二等奖1项,省部级科技进步一等奖3项、省部级科技进步二等奖5项。2019年9月,荣获中共中央、国务院、中央军委颁发的"庆祝中华人民共和国成立70周年"纪念章。2019年9月,被中国塑料加工工业协会授予"中国塑料行业杰出人物",2023年被中国塑料机械工业协会授予"中国塑料机械行业发展 30 周年科技精英"称号。



#### 王文广,深圳市高分子行业协会秘书长

1985年大连轻工业学院本科高分子专业毕业,2004年获得教授级高级工程师。从事塑料行业近40年,是塑料改性专家和行家。主编塑料专著6本,授权发明专利5项,获得市级科技进步一等奖1项,担任 TC48、TC15国家标委会委员,参与编写标准6项,担任5家上市公司独立董事。现任中国合成树脂协会执行副理事长、生物降解树脂分会执行副会长,深圳市高分子行业协会党委书记、常务副会长、秘书长。



(排名不分先后)



#### 侯培民, 上海塑料行业协会副秘书长

教授级高级工程师,获得多项省部级科技成果二等奖、三等奖,发表论文30余篇,获上海市科技工作者称号。 曾担任中国石化上海石化合纤所所长,合成纤维国家工程中心副主任,专业杂志常务副主编等职。



#### 蒋平平 博士,江南大学化学与材料工程学院教授、博士研究生导师

浙江省杭州市政府 钱江"特聘专家、美国南佛罗里达大学 University of SouthFlorida 高级研究学者(国家留学基金委派出);教育部、江苏省、浙江省科技厅和中国轻工联合会科技成果评审专家,任中国工程塑料协会助剂专家委员会专委员,国家标准委员会橡塑助剂专家委员会委员,中国增塑剂业行业技术专家委员会主任委员,主持包括国家科技部支撑项目、国家自然科学基金、教育部及省部级研究项目多项;发表SCI和CSCD论文共250篇,以排名第一获教育部科技进步二等奖1项,江苏省科技进步二等奖1项,中国轻工联合会科技进步一等奖2项,获授权发明专利54项。



# 杨英裔,江苏骏伟精密部件科技股份有限公司,集团市场总监

毕业于英国哈德斯菲尔德大学,2004年进入注塑行业,现服务于江苏骏伟精密部件科技股份有限公司(ACEWAY),担任集团市场总监。ACEWAY 是一家有35年历史的高精密注塑港资企业,生产的零部件均应用于知名品牌,如:兰博基尼、保时捷、奥迪、大众、通用、别克、奔驰、宝马、特斯拉、比亚迪、奥姆龙、艾默生、霍尼韦尔、丹佛斯、思科等等。尤其是汽车门锁 EKT/ECC 领域,占全球 8%~10%市场份额,相关零件年产量超 3,000万件。



#### 耿芳 博士,美敦力中国研发中心资深首席科学家

美敦力中国研发中心科研技术临床部门负责人,美敦力终身技术荣誉 Technical Fellow,正高级工程师,上海理工大学联合培养硕士生导师。上海市人才发展资金获得者。曾两次获得美敦力全球创新 QUEST 项目,主持多项创新产品开发。国内外从事生物材料及医疗器械开发 20 多年,发表文章近 30 篇,申请授权专利 50 多项。

#### 塑料原材料及添加剂 Plastics Raw Materials & Additives

# 获奖企业: 万华化学集团股份有限公司

Winnier: Wanhua Chemical Group Co., Ltd.



万华化学集团股份有限公司是一家全球化运营的化工新材料公司,依托不断创新的核心技术、产业化装置及高效的运营模式,为客户提供更具竞争力的产品及解决方案。

Wanhua Chemical Group Co., Ltd. is among the global leading suppliers of chemical innovative products. Relying on the continuous innovation, commercialized facilities and efficient operation, the company provides customers with more competitive products and solutions.

# 获奖产品:万华化学医疗级PC-MR系列

Product: Wanhua Chemical Medical Grade PC-MR Series

万华化学Clarnate®医疗级PC-MR系列产品,可进行高温蒸汽灭菌、环氧乙烷灭菌、γ射线及电子束灭菌等多种消毒方式,并提供不同熔指(MVR:6~22cm³/10min)产品,可广泛应用于血氧合器、输液组件、微创器械、医疗设备等耗材和设施中。

Wanhua Chemical Clarnate® Medical grade PC-MR series products, capable of Multiple disinfection methods such as high-temperature steam sterilization, ethylene oxide sterilization, y radiation and electron beam sterilization, while also providing different Melt Index (MVR: 6-22cm³/ 10 min) product widely used in consumables and facilities such as blood oxygenators, infusion components, minimally invasive devices, and medical equipment.





# 获奖企业:金发科技股份有限公司

Winnier: KINGFA SCI. & TECH. CO., LTD.



金发科技股份有限公司成立于1993年,总部位于广州科学城,旗下拥有56家子公司,聚焦高性能化工新材料的研发、生产、销售和服务,是全球规模最大、产品种类最为齐全的改性塑料生产企业。

Founded in 1993, Kingfa Sci. & Tech. Co., Ltd. is an advanced material enterprise focusing on the R&D, production, sales and service of advanced high-performance chemical materials with the most complete product categories in global advanced chemical material industry.

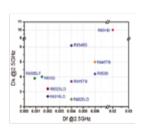
# 获奖产品:高频高速数据传输连接器用介电调控LCP材料

Product: LCP materials with tailored dielectric properties for high-frequency and high-speed data transmission connectors

介电可调控Vicryst® LCP系列材料,其Dk(介电常数)值可在2.5-10范围内精准调控,Df(介电损耗)值最低可达0.0009,大批量在国内外连接器龙头企业生产高频高速连接器,广泛应用于基站天线-服务器-终端移动通讯网络设备中。

The dielectric property of Vicryst® LCP series materials can be controlled, the Dk value can be accurately adjusted in the range of 2.5-10, and the lowest Df value can reach 0.0009. These materials are used in the production of high-frequency and high-speed connectors by leading connector enterprises at home and abroad, and are widely used in base station antenna-server-terminal mobile communication network equipment.







# 获奖企业: 陶氏化学(中国)投资有限公司

Winnier: Dow Chemical (China) Investment Co., Ltd.



陶氏公司(纽约证交所代码: DOW)是全球领先的材料科学公司之一,服务于包装、基础设施、交通运输和消费者应用等高增长市场的客户。我们的全球性布局、资产整合和规模效益、专注的科技创新、业务领先地位,以及对可持续发展的承诺,确保我们能够实现盈利性增长,并助力打造可持续未来。我们在31个国家和地区设有制造基地,全球约35,900名员工。陶氏公司2023年实现约450亿美元销售额。"陶氏公司"或"公司"是指Dow Inc. 及其子公司。如需进一步了解我们,以及我们成为在创新、客户导向、包容性和可持续发展方面全球领先的材料科学公司的愿景,请访问www.dow.com.

Dow (NYSE: DOW) is one of the world's leading materials science companies, serving customers in high-growth markets such as packaging, infrastructure, mobility and consumer applications. Our global breadth, asset integration and scale, focused innovation, leading business positions and commitment to sustainability enable us to achieve profitable growth and help deliver a sustainable future. We operate manufacturing sites in 31 countries and employ approximately 35,900 people. Dow delivered sales of approximately \$45 billion in 2023. References to Dow or the Company mean Dow Inc. and its subsidiaries. Learn more about us and our ambition to be the most innovative, customer-centric, inclusive and sustainable materials science company in the world by visiting www.dow.com.

# 获奖产品: INNATE™ ST100 精密包装树脂

Product: INNATE™ ST100 Precision Packaging Resin

INNATE™ ST100精密包装树脂突破了传统聚乙烯性能限制,可显著提升材料韧性、 挺度、耐热性的平衡。同时,该材料扩宽了包装设计的边界,使减少材料使用、 简化结构设计、提高包装完整性、减少破包率成为了可能。

INNATE™ ST100 precision packaging resin breaks through performance limitations oftraditional polyethylene with significantly improved balance of toughness, stiffness and heat resistance of the material.

Additionally, this material expands possibilities in packaging design – making it possible to reduce material use, simplify structural design, improve packaging integrity and reduce package breakage.





获奖企业: 宝理塑料

Winnier: Polyplastics



宝理塑料株式会社于1962年在日本创业,是亚洲历史悠久的工程塑料专业生产商之一。我们不仅研发及生产,并且也在全球销售旗下的高性能材料(POM, PBT, PET, PPS, LCP, COC, LFT等等)。各工程塑料应用广泛,由电子电器、消费品、汽车工业,以至5G高端通讯设备、医疗诊断器具、3D打印等等。还有推出环保材料以实现国际共同减排净零的目标作出贡献。

宝理塑料株通过和客户紧密沟通,提供全方位的技术解决方案,以始终「坚持贴近客户」为立场思考,并付诸行动,致力于成为客户值得信赖及超越社会期望的工程塑料解决方案的供应商。这就是「宝理模式」Polyplastics Way。

Polyplastics is an engineering plastics specialist that has been in business since 1962 in Japan. It is one of the longest-established companies in this field in Asia. Polyplastics is a leading global company that develops, produces, and sells high-performance materials such as POM, PBT, PET, PPS, LCP, COC, LFT, and more worldwide. Our materials are widely used in a vast array of applications, including electronic appliances, consumer goods, the automotive industry, 5G high-end communication equipment, medical diagnostic equipment, 3D printing, and many more. We are proud to contribute actively to the development of low GHG emission resins.

We work closely with our customers and offer a wide range of technical solutions. Our commitment is to become a dependable supplier of engineering plastic solutions that exceed the expectations of society. We believe in always staying close to our customers by thinking and acting on their behalf. This is the Polyplastics Way.

# 获奖产品: DURAST® Powder - 突破性的工程塑料精細粉末

Product: DURAST® Powder - a Unique Engineering Plastic Fine Powder

宝理塑料的材料主要提供面向注塑成型、挤出成型的颗粒状的工程塑料。在不断扩大产品阵容的过程中,有客户提出"对于无法采用粒料的制造方法,能否也能使用工程塑料为产品附加新功能呢?"的希望。为了回应该需求,我们就积极的展开了研究,并成功将工程塑料粉末化,开发出"DURAST® Powder(工程塑料精细粉末)",该产品拥有独具特色的形状,粒径小且分布窄(10µm~200µm)。最近宝理塑料更确立了工程塑料POM精细粉末的3D打印技术,有助于无需模具•制造小批量多品种或者形状复杂的产品,加快开发速度的新型成型解决方案。



Polyplastics' materials are mainly granular engineering plastics for injection mouldingand extrusion. In the process of expanding the product lineup, some

customers have asked whether it is possible to use engineering plastics to add new functions to their products even if the manufacturing method of pellets is not possible. To respond to the demand, we actively researched and successfully powdered engineering plastics, and developed DURAST® Powder, which has a unique shape, small particle size, and narrow distribution( $10\mu m \sim 200\mu m$ ).

Recently, Polyplastics has established a 3D printing technology for POM fine powders of engineering plastics, which can help to speed up the development and manufacture solutions of small-batch, high-mix, or complex-shaped products without the need for moulds.

# 塑料原材料及添加剂 Plastics Raw Materials & Additives



# 获奖企业: 博禄贸易(上海)有限公司

Winnier: Borouge Sales and Marketing (Shanghai) Co., Ltd.



博禄在阿布扎比证券交易所上市,是一家为能源、基础设施、汽车、先进包装、医疗和农业行业提供创新和差异化聚烯烃解决方案的领先石化企业。阿布扎比国家石油公司(ADNOC)拥有博禄54%的多数股权,北欧化工持有博禄36%的股份。

#### 了解更多

博禄网站 www.borouge.com 北欧化工网站 www.borealisgroup.com

Borouge, listed on the Abu Dhabi Securities Exchange, is a leading petrochemical company that provides innovative and differentiated polyolefin solutions for the energy, infrastructure, mobility, advanced packaging, healthcare and agriculture industries. Abu Dhabi National Oil Company (ADNOC) owns a majority 54% stake and Borealis holds a 36% stake in Borouge.

Learn more about
Borouge at www.borouge.com
Borealis at www.borealisgroup.com

# 获奖产品: Borlink™ LS4201S - 用于额定电压高达 230kV 电力电缆绝缘的可交联聚乙烯

Product: Borlink™ LS4201S - Crosslinkable insulation of XLPE power cables with rated voltages up to 230kV

Borlink™ LS4201S 是额定电压高达230kV的海底电缆和城市地下电缆等复杂应用中绝缘的理想选择,可在 10kV/mm 的最大工作场强下运行。在严格的清洁度要求下生产、具有优异的焦烧安全性和低脱气负担的优异性能。2022年,博禄Borlink™ LS4201S商业化用于中国220kV的城市地下电缆和海底电缆。

Borlink™ LS4201S is specially tailored for high stress high voltage applications with rated voltage of up to 230kV, and can perform at a maximum operating stress of 10kV/mm. It is produced under strict cleanliness requirements with superior scorch security and a low degassing burden. Borouge Borlink™ LS4201S has been commercially used in 220kV underground and submarine cables in China.





#### 获奖企业: 卡博特(中国)投资有限公司

Winnier: Cabot China Holding Company



卡博特公司,是一家全球领先的特种化学品和高性能材料公司,高性能材料事业部包括导电炭黑、碳纳米管、碳纳米结构、特种炭黑、 气相金属氧化物、气凝胶、特种聚合物、喷墨色浆等特种化学品,我们的公司为世界各地的客户提供各种产品和解决方案。

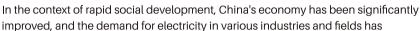
Cabot Corporation is a leading global specialty chemicals and performance materials company. Cabot Performance Department has Conductive carbons, Carbon nanotubes, Carbon nanostructure, Specialty Carbons, Fumed Metal Oxide, Specialty Compounds, Inkjet Colorants and Inks, etc. The global footprint and focus on sustainability will help support the stable growth of the customers.

#### 获奖产品: VULCAN® XC500导电炭黑应用于高压、超高压电缆屏蔽料

Product: VULCAN® XC500 Conductive Carbon Black For High Voltage Wire & Cable Application

在社会快速发展的背景下,我国经济显著提升,随之各行业和领域对电力的需求也 逐渐增多,例如新能源汽车、城市化建设电缆架空线入地、地铁等,陆地电缆与 海底电缆得到了快速发展和大量应用。除了中低压电缆的需求之外, 当前110kV 高压电缆, 220KV超高压电缆成为了我国电力系统输送电能的关键工具之一, 并 体现出电力系统是否能够正常运转。

卡博特前瞻性的投产了VULCAN® XC500,应用与高压及超高压电缆的屏蔽电缆料。 VULCAN XC500具有优秀的导电性、纯净度、稳定性、分散性,使制品表面更光滑, 加工性能更优,在高压和超高压电缆屏蔽料中具有很好的性能。



gradually increased, such as new energy vehicles, urbanization construction cables, overhead lines into the ground, subways, etc.,

land cables and submarine cables have been rapidly developed and widely used. In addition to the demand for medium and low voltage cables, the current 110kV high-voltage cables and 220KV ultra-high voltage cables have become one of the key tools for the transmission of electric energy in China's power system, and reflect whether the power system can operate normally. Cabot has a forward-looking approach to production of the VULCAN® XC500 for shielded cable compounds for high-voltage and

ultra-high-voltage cables. VULCAN XC500 has excellent conductivity, purity, stability and dispersion, which makes the surface of the product smoother, the processing performance is better, and it has good performance in high-voltage and ultra-high-voltage cable

8



shielding materials.



# 获奖企业: 科思创(上海)投资有限公司

Winnier: Covestro (Shanghai) Investment Co., Ltd.



科思创是全球领先的高品质聚合物及其组分的生产商之一。依托创新的产品、工艺和方法,公司在众多领域帮助促进可持续发展和提高生活品质。科思创在全球范围为交通出行、建筑和生活起居以及电子电气等重要行业的客户提供服务。此外,科思创聚合物还应用于运动休闲、化妆品和医疗健康等领域,以及化工行业本身。

公司致力于实现全面循环,目标于2035年实现气候中性(范围1和2)。2022 财年,科思创销售额达到180亿欧元。截至2022年底,科思创在全球拥有50个生产基地,约18000名员工(按全职员工计算)。

Covestro is one of the world's leading manufacturers of high-quality polymer materials and their components. With its innovative products, processes and methods, the company helps enhance sustainability and the quality of life in many areas. Covestro supplies customers around the world in key industries such as mobility, building and living, as well as the electrical and electronics sector. In addition, polymers from Covestro are also used in sectors such as sports and leisure, cosmetics and health, as well as in the chemical industry itself.

The company is committed to becoming fully circular and is striving to become climate neutral by 2035 (scope 1 and 2). Covestro generated sales of EUR 18 billion in fiscal 2022. At the end of 2022, the company had 50 production sites worldwide and employed approximately 18,000 people (calculated as full-time equivalents).

# 获奖产品: 科思创为下一代药物注射器提供功能性医疗级聚碳酸酯及可持续方案

Product: Covestro debuts innovative and sustainable drug delivery device

科思创近期推出了创新的下一代药物注射器的概念装置。该装置由医疗级低摩擦模克隆<sup>®</sup>、玻纤增强的模克隆<sup>®</sup>、高流动模克隆<sup>®</sup>和拜本兰<sup>®</sup>等聚碳酸酯及聚碳酸酯 共混材料打造而成,并可选用医用模克隆<sup>®</sup>RE材料,这种材料保持了科思创材料 的性能,同时又含可再生成分,从而降低产品碳足迹,赋予药物注射器更高的可持 续性。

Covestro's new line of healthcare-grade products — including Medical low friction Makrolon®, Medical glass filled Makrolon®, high flow Makrolon®, and Bayblend® — bring new levels of performance and sustainability to the medical device market with an all-polycarbonate device.

Components can also be made with Medical Makrolon® RE, which maintains the performance and quality of fossil-based polycarbonates from Covestro while incorporating attributed renewable content resulting in a low carbon footprint.





#### 获奖企业:沙特基础工业公司

Winnier: SABIC



沙特基础工业公司

沙特基础工业公司(SABIC)是世界知名的多元化化工企业,总部位于沙特利雅得。公司旗下制造工厂遍布全球,包括美洲、欧洲、中东和亚太在内多个国家和地区,产品涵盖化学品、通用及高性能塑料、农业营养素。在建筑、医疗设备、包装、农业营养素、电子电器、交通运输和清洁能源等关键终端应用市场,SABIC长期致力于助力客户发掘潜在机遇。

SABIC is a global diversified chemicals company, headquartered in Riyadh, Saudi Arabia. It manufactures on a global scale in the Americas, Europe, Middle East and Asia Pacific, making distinctly different kinds of products: chemicals, commodity and high performance plastics, agri-nutrients.

SABIC supports its customers by identifying and developing opportunities in key end-use applications such as construction, medical devices, packaging, agri-nutrients, electrical and electronics, transportation and clean energy.

获奖产品: LNP™ ELCRES™ SLX1271SR树脂助力汽车行业免喷涂设计,减少挥发性有机物排放 Product: LNP™ ELCRES™ SLX1271SR resin enabling paint free design for automotive industry, reducing VOCs emission

SABIC推出的 LNP ELCRES SLX1271SR树脂是一款基于专利配方设计的聚碳酸酯PC 共聚物改性料。该产品的优异特性能帮助汽车行业实现免喷涂设计,降低挥发性有机物排放,为可持续发展做出贡献。

#### 该新产品的主要优势包括:

- · 持久的户外耐候性能(SAE J2527、GB/T 32088-2015 B-1)
- ·抵抗洗车实验的耐刮擦性能(湿法猪毛刷刮擦, ASTM D2486)
- · 较高的铅笔硬度(ASTM D3363)
- · 优异的透明性、高表面光泽度、深邃的钢琴黑效果
- · 较高的抗冲击性能。

LNP ELCRES SLX1271SR树脂已入围2024年爱迪生发明大奖。



LNP<sup>™</sup> ELCRES<sup>™</sup> SLX1271SR resin is a new addition to its weatherable LNP SLX copolymer portfolio. This specialty material features enhanced scratch and mar resistance and a high-gloss surface finish to provide the automotive industry with a new molded-in color solution for exterior components. LNP ELCRES SLX1271SR resin also delivers exceptional weatherability, continuous UV stability and good mechanical performance. This novel resin is a 2024 Edison Best New Product Awards finalist in the Advanced Materials category. The Edison Awards honor global innovation excellence.



# 获奖企业: 浙江佳华精化股份有限公司

Winnier: Zhejiang Java Specialty Chemicals Co., Ltd.



佳华精化\*是一家集氟硅聚合物、高性能抗静电剂、有机硅塑料添加剂、高性能阻燃剂、创新型添加剂、环保新材料等研发、生产、销售、 服务于一体的国家级高新技术企业。

佳华精化°秉承"千方百计推动高分子材料的持续发展,将高效能产品带入千行百业,将绿色和健康送入千家万户"的企业使命,致力于为各行业的客户提供可持续的创新解决方案。

Zhejiang Java Specialty Chemicals Co., Ltd. is a national high-tech enterprise intergrating the research, development, production, sales and service of fluoro-silicon polymer processing aids, silicone additives, high performance flame retardants, innovative additives, eco-friendly materials, etc.

Javachem adheres to the corporate mission of "Do everything possible to promote the sustainable development of polymer materials, present highly-efficient products to thousands of industries, and bring greenness and health to thousands of households" and devotes to providing innovative solutions to customers from various industries.

# 获奖产品:创新型水性无卤阻燃聚氨酯

Product: Innovative water-soluble and halogen-free polyurethane

创新型水性无卤阻燃聚氨酯Javachem®PEPU与水性聚氨酯体系相容性极佳,互溶效果好,成膜后表面光滑干爽,不易发生迁移,在满足材料阻燃性能要求的同时,基本保持材料本身的力学性能。

Javachem®PEPU通过对水性聚氨酯的阻燃,可以大大提高水性聚氨酯的应用范围。由于其水性特点,不仅可应用于所有聚氨酯乳液,也可用于其他能与聚氨酯相容的高组分乳液材料。

Javachem®PEPU is an innovative and halogen-free flame retardant, which has good compatibility with the water-based polyurethane system and good mutual solubility. After film formation, the film surface is smooth and dry, not easy to migrate. It basicallymaintains the mechanical properties of materials itself while meeting the requirement of flame retardancy.



Javachem®PEPU takes flame retardant effect and greatly widen the application range of water-based polyurethane. Due to its water-based characteristic, it is applicable to all polyurethane emulsions, and other high-phase emulsions that are compatible with polyurethane.



#### 获奖企业:宁波坚锋新材有限公司

Winnier: Ningbo Topcentral New Material Co., Ltd.





坚锋,专注可持续与低碳功能性材料,提供包括物理回收[淘塑®Topcircle®]化学回收[恺萨®Chemcircle®]新材料改性[彼达®CircleBlend®] 生物基及可降解材料[拜德康® Bydercom®],集合研发创新、测试分析,智能制造销售与技术服务,为客户与产业价值链提供一站式的数字化、高性能化和功能定制化的PCR循环材料可持续创新解决方案。

Topcentral®, focus on sustainable and low-carbon functional materials, including physical recycling [Topcircle®], Chemical recycling [ChemCircle®], new material modification[CircleBlend®], bio-based and degradable materials [Bydercom®], integrates R&D innovation, test analysis, intelligent manufacturing, sales and technical services to provide customers and industrial value chains with one-stop digital, high-performance and functionally-customized sustainable innovative solutions for PCR recycling materials.

# 获奖产品: 丙烯腈-丁二烯-苯乙烯聚合物 (ABS) "零碳"循环材料

Product: Acrylonitrile-butadiene-styrene polymer (ABS) "zero carbon" cycle material

产品来源于废弃ABS,通过收集、预处理和功能化再生工序,结合清洁、改性、熔体过滤和数字化自主创新技术制备。碳排放较原生ABS材料减少80%以上,相对同类循环ABS材料减少20%以上,实现了废弃ABS材料的高质化和高值化应用。

The product is derived from discarded ABS, and prepared through the processes of collection, pre-processing, functional regeneration, combining with cleaning, modification, melt filtration, and digital independent innovative technology. Carbon emissions are reduced by over 80% compared to native ABS, and over 20% compared to similar recycled ABS, achieving high-quality and high-value application of discarded ABS.





# 获奖企业: 恩骅力工程材料(上海)有限公司

Winnier: Envalior Engineering Materials

# Envalior 恩骅力

恩骅力是一家领先的全球工程材料解决方案供应商,在全球各地拥有约 4,000名员工。凭借百年来以客户为导向的创新经验,恩骅力专注于研究发展可持续的高性能材料解决方案,并将其深厚的材料和专业的应用知识用于广泛的商业实践中。恩骅力公司为全球各类重要市场提供材料解决方案,包括传统汽车、新能源汽车、电子与电气设备以及消费品等领域。如需了解更多信息,请访问恩骅力官网www.envalior.com.

Envalior is a leading global engineering materials solution provider with about 4,000 employees worldwide. With a 100-year track record of customer-focused innovation, Envalior focuses its deep material and application expertise on sustainable high-performance solutions. The company supplies many of the world's key markets including automotive and new mobility, electronics and electrical, and consumer goods. For more information visit www.envalior.com.

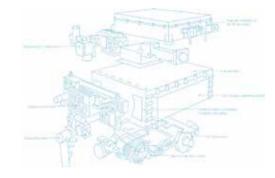
# 获奖产品:恩骅力聚苯硫醚Xytron™ G4080HRE 用于燃料电池系统

Product: Envalior PPS Xytron™ G4080HRE for fuel cell system

恩骅力专家深入研究燃料电池效率和寿命的影响因素。由于PPS低离子析出性、抗水解和抗腐蚀能力,在众多工程塑料选择中与燃料电池要求锲合度最佳。恩骅力开发了Xytron™ PPS G4080HRE,性能达新高度:

- ·水解和化学试剂老化后,机械强度和离子析出率高于竞品;
- ·极佳尺寸稳定性、耐疲劳性、耐蠕变性,长时间老化测试后依然明显优势;
- ·极佳的熔接线强度,最大程度保证长期安全使用。

Envalior experts conduct in-depth research on the influencing factors of fuel cell efficiency and lifespan. Due to PPS's low ion leaching, resistance to hydrolysis, and corrosion, it is the best fit among many engineering plastics for fuel cell requirements. Envalior has developed Xytron™ PPS G4080HRE, achieving new heights in performance:



- · After hydrolysis and chemical aging tests, mechanical strength and ion leaching rate surpass competitors;
- Excellent dimensional stability, fatigue resistance, and creep resistance remain significant advantages even after extended aging tests;
- · Outstanding weld line strength, ensuring long-term safety in use to the maximum extent.



# 获奖企业: 赢创特种化学(上海)有限公司

Winnier: Evonik Specialty Chemicals (Shanghai) Co., Ltd.



赢创是全球领先的特种化学品公司,业务遍及100多个国家和地区。2022财年,赢创销售额为185亿欧元,营业利润(调整后息税折旧及摊销前利润)达24.9亿欧元。我们超越化学的边界,致力于为客户打造创新型、高盈利性以及可持续的解决方案。赢创在全球的约34000名员工始终不懈努力,只为让生活变得日益美好。

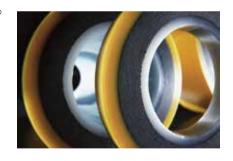
Evonik is one of the world leaders in specialty chemicals. The company is active in more than 100 countries around the world and generated sales of €18.5 billion and an operating profit (adjusted EBITDA) of €2.49 billion in 2022. Evonik goes far beyond chemistry to create innovative, profitable, and sustainable solutions for customers. About 34,000 employees work together for a common purpose: We want to improve life today and tomorrow.

# 获奖产品: 适用于TCP热塑性复合管的VESTAMID® NRG聚酰胺12 (PA12) 与VESTAPE®单向带 Product: VESTAMID® NRG Polyamide 12 (PA12) and VESTAPE® for Thermoplastic Composite Pipelines

VESTAMID® NRG PA12是一种专为能源输送管道开发的聚酰胺12(PA12)材料,VESTAPE®是基于PA12材料的一种高性能碳纤维单向带。

采用VESTAMID® NRG PA12与VESTAPE®单向带制造的热塑性复合管(TCP)具备优秀的防腐蚀性与高强度,适用于复杂环境下油气、氢气及二氧化碳的输送,并大幅提升氢气与二氧化碳的管理可靠性。

VESTAMID® NRG PA12 is a polyamide 12 (PA12) material specially developed for energy transmission pipelines, and VESTAPE® is a high-performance carbon fiber unidirectional tape based on PA12 material.



Thermoplastic Composite Pipes (TCP) made of VESTAMID® NRG PA12 and VESTAPE® unidirectional tapes have excellent corrosion resistance and high strength, which are suitable for the transportation of oil and gas, hydrogen and carbon dioxide in complex environments, and greatly improve the reliability of hydrogen and carbon dioxide management.



# 获奖企业: 利安德巴塞尔

Winnier: LyondellBasell



我们是全球化工行业的头部企业,为可持续发展的日常生活创造解决方案。通过先进的技术和专注的投资,我们正在助力一个循环和低碳经济。在我们所有的工作中,我们的目标是为我们的客户、投资者和社会解锁价值。作为全球聚合物头部生产商之一和聚烯烃技术的领导者,我们研发、生产和销售高品质的创新产品,其应用范围从可持续交通和食品安全到清洁水和优质医疗。

We are a leading company in the global chemical industry, creating solutions for sustainable daily life. Through advanced technology and focused investment, we are enabling a circular and low-carbon economy. In all our work, we aim to unlock value for our customers, investors and society. As one of the world's leading producers of polymers and a leader in polyolefin technology, we develop, produce and sell high-quality innovative products with applications ranging from sustainable transportation and food safety to clean water and quality healthcare.

# 获奖产品: 低收缩高性能聚丙烯 Hifax EP246P

Product: Low shrinkage Hifax EP246P

在全球节能与环保的发展趋势下. LYB作为聚丙烯的发明者,我们通过开发高性能的催化剂,结合Loop双釜气相工艺,精确控制分子结构及橡胶相,成功开发了基于spheripol工艺的低收缩率聚丙烯,由传统的收缩率1.6%降低到0.9%,取得了巨大的突破。

In line with the development trend of environmental protection. As the inventor of polypropylene, LYB has successfully developed low-shrinkage polypropylene based on the Spheripol process by developing high-performance catalysts, combined with the Loop plus dual gas phase process, and precisely controlling the molecular structure and rubber phase, reducing the traditional shrinkage rate from 1.6% to 0.9%, get a breakthrough on the basis of traditional material.





#### 获奖企业: 艾曼斯(苏州)工程塑料有限公司

Winnier: EMS-CHEMIE (Suzhou) Ltd.



EMS-GRIVORY 是 EMS 集团高性能聚合物事业部的重要一员,全球共有超过 1000 名员工。最大的开发中心和生产工厂位于瑞士的 Domat/Ems,德国、中国和美国均设有生产基地。另外,我们在欧洲、亚洲和美洲的主要市场还设有开发和销售组织,能够快速抵达现场 为客户提供服务。2015年在中国苏州投入使用的亚太应用研发中心旨在为本地客户提供更方便迅捷的售前服务和售后技术支持。

我们的高性能聚酰胺产品以商标名Grivory®, Grilamid® and Grilon® 行销全世界。 产品广泛应用在汽车、工业消费品、电子电气、手机通讯、光学眼镜、医疗设备和包装行业。

EMS-GRIVORY is part of the High Performance Polymer business area of the EMS Group and employs around 1000 people worldwide. The largest development center and production site is located at Domat/Ems, Switzerland with further production sites in Germany, China and the USA. We also have development and sales organizations in all major markets and can quickly reach our customers on site. A state-of-the-art Application Development Center was opened in 2015 in Suzhou, China for better catering to the needs and wants of local customers

Our high performance polyamides are sold worldwide under the trade names Grivory®, Grilamid® and Grilon®. Polyamides from EMS-GRIVORY are used in applications in the market segments automotive, industrial & consumer goods, electro & electronics, telecommunication, optics, medical technology and packagings.

# 获奖产品: Grivory GV XE11119 (玻纤增强, 阻燃级别)

Product: Grivory GV XE 11119

Grivory GV XE 11119为50%特殊玻纤增强,V0等级阻燃的特种工程塑料,结合了半芳香族尼龙和共聚多酰胺的优点,具有绝佳的耐腐蚀性和表面质量,无需喷漆等后加工工艺即可达到媲美金属质地的高级外观效果。Grivory GV XE 11119即使在吸湿后也表现出卓越的特性,如:

- 高刚性、高强度
- 高尺寸稳定性
- 极低翘曲
- 良好的耐化学性
- 优异的表面光洁度

Grivory GV XE 11119 is a 50% glass-fibre reinforced flame retardant (UL 94 V-0) engineering thermoplastic material based on a combination of semi-crystalline polyamide with partially aromatic copolyamide, such as:

- high stiffness and strength
- high dimensional stability
- very low warpage
- good chemical resistance
- very good surface finish



# 获奖企业: 成都思立可科技有限公司

Winnier: Chengdu Silike Technology Co., Ltd.



成都思立可科技有限公司是一家专业从事有机硅在高分子材料应用领域研究的国家高新技术企业。多年来,思立可先后研发出LYSI系列硅 酮改性助剂、思特肤系列硅基热塑性弹性体材料、SILIMER无析出薄膜爽滑母粒等产品,具有丰富的行业技术研发经验。

此外,公司研发出用于管材、线缆、薄膜、石化、单丝&纤维等领域,取代含氟PPA的全新升级产品——无氟PPA助剂,为行业带来更安全环保的加工解决方案。

Chengdu Silike Technology Co., Ltd. is a national high-tech enterprise specializing in the application of silicone in the field of polymer materials. Over the years, we have developed LYSI series silicone modification additives, Si-TPV series (silicone-based thermoplastic elastomer) materials, SILIMER none-precipitation film smooth masterbatch and other products with rich experience in industry technology research and development.

In addition, Silike has developed a new upgraded product for pipe, cable, film, petrochemical, monofilament & fiber and other fields to replace fluorinated PPA additives - fluorine-free PPA, bringing safer and environmentally friendly processing solutions to the industry.

# 获奖产品: 无氟PPA母粒

Product: Fluorine-free PPA

无氟PPA母粒是思立可推出的不含PFAS的聚合物加工助剂(PPA),加入少量即可有效提升内外润滑性能、改善加工性和表面特性。具有消除熔体破裂,降低摩擦系数,延长设备清理周期,提高产量和产品质量,环保安全等特点。可广泛用于电线电缆、薄膜、管材、色母粒、石化行业等领域。

Fluorine-free PPA masterbatch is a PFAS-free polymer processing aid (PPA) launched by Chengdu Silike, which can be added in small additions but effectively improve internal and external lubrication, processability and surface properties. It has the characteristics of eliminating melt rupture, reducing friction coefficient, extending equipment cleaning cycle, improving production and product quality, environmental protection and safety, etc and can be widely used in wire and cable, film, pipe, masterbatch, petrochemical industry and other fields.





#### 获奖企业:广州凌玮科技股份有限公司

Winnier: Guangzhou Lingwe Technology Co., Ltd.



凌玮科技(股票代码:301373.SZ)在2007年创立于广州,是专注于纳米二氧化硅新材料产业集团企业。

凌玮科技经营环保型及多功能二氧化硅新材料,自主研发了高端开口剂、离子交换型二氧化硅环保防锈颜料等高端产品,终端客户分布于轨道交通、3C电子、光伏、医用胶片、医用手套、石化、塑料、皮革、纺织、卷材、木器、喷墨相纸、广告耗材等20多个应用领域,在新材料领域中享有"工业味精"的美誉。

LINGWE was established in Guangzhou, is a Chinese supplier specializing in the field of nano-silica advanced materials. LINGWE has 3 production bases and 4 R&D centers, with a global marketing sales network, achieving integrated operations of production, R&D, and sales.

LINGWE's products cover matting agent, ion-exchanged anti-corrosive pigment, anti-blocking agent, alumina, waterborne epoxy resin and other advanced materials, which are applied in over 20 applications including coatings, inks, plastics, petroleum, wind power, photovoltaic, food, pharma and environmental protection, forming a sustainable industrial chain.

# 获奖产品: 聚酯/聚丙烯薄膜用多功能型二氧化硅开口剂 K45

Product: Silica Anti-blocking Agents for PET Film K45

凌玮科技二氧化硅开口剂HOMBLOC<sup>TI</sup> K45,是一种高纯合成的无定形二氧化硅,外观为白色粉末,具有多孔结构、微米级粉体。与塑料具有良好的相容性,赋予薄膜优异的开口性、爽滑性等性能,应用于PET、PP类塑料薄膜。

- ① 开口、爽滑,其性能不影响塑料薄膜的透明度和强度。
- ② 无毒、无污染,不含任何易挥发物质及析出物,保证被包装物的质量。
- ③ 提高薄膜在高速包装线上抗黏结性,提高抗蠕变性能,对薄膜具补强作用。

Homsil silica anti-blocking agent, is a synthetic amorphous silica appearing as white free-flowing powder. It is porous structure and high specific area



micronized powder. It has good compatibility with various plastics, which will not affect the transparency and strength of plastic film. Meanwhile, the exposed molecular chains are reduced during the processing of polymers with anti-blocking agent, so that there is no entanglement of macromolecular chains while films are in contact, thereby enhancing the anti-blocking efficiency. This product is non-toxic, non-polluting, does not contain any volatile substances and precipitates, which ensures the quality of the packaged goods, improves the anti-adhesive properties of the film on high-speed packaging production lines, improves creep resistance.



#### 获奖企业: 上海日之升科技有限公司

Winnier: Shanghai Sunny Technology Co., Ltd.



上海日之升科技有限公司是改性塑料行业技术革新型企业,专注塑料材料的深度改性,持续推出具有技术革新性的产品,致力于提升客户的产品竞争力。

Shanghai Sunny is a technical innovation enterprise in the modified plastic industry, focusing on the depth modification of plastic materials, and continuously launching products with technological innovation, to enhance the competitiveness of customers' products.

# 获奖产品:可用于智能穿戴设备的轻质高强聚酰胺合金材料

Product: Lightweight, high-strength polyamide alloy material used in smart wearable devices

可用于智能穿戴设备的轻质高强聚酰胺合金材料,有低比重同时具有较高的刚性,耐化学品性和生物相容性好,可与人体皮肤直接接触,可用于耳机、智能手表和智能眼镜等,大幅度降低产品重量,提升用户的使用体验。

Lightweight high-strength polyamide alloy material for smart wearable devices, with low specific gravity and high rigidity, good chemical resistance and biocompatibility, direct contact with human skin, can be used for earphones, smart watches and smart glasses, etc., greatly reducing product weight and improving user experience.







# 获奖企业: 江苏泛华化学科技有限公司

Winnier: Inter-China Chemical Co., Ltd.



江苏泛华化学科技有限公司是专注于二氧化钛类产品的创新型科技公司,是集研发、检测、销售为一体的技术营销平台。公司聚焦于高端 钛白粉和二氧化钛新材料的垂直化布局,重度化研发、经营,精耕细作,致力将公司打造成具有行业高端技术领域标杆性的"小而美" 科技企业。

Inter-China Chemical is focus on the research and development of TiO2 products. We are keen on developing premium products, and to market excellent products with technology advantage. The plant Kunming Donghao has 60k tons TiO2 yearly capacity. DR-2588 & DR-2589 & DR-2688 are premium plastic TiO2 with super bluish undertone.

# 获奖产品:聚碳酸酯 (PC) 工程塑料级钛白粉DR2688

Product: PC engineering plastic grade Ti02 DR2688

DR-2688是一种专为聚碳酸酯 (PC) 体系生产而设计的金红石型二氧化钛颜料,采用特殊的无机和有机表面处理工艺,有效解决了聚碳酸酯等聚合体加工过程中粘度和亮度降低、色相黄变、材料脆化等问题,能确保聚碳酸酯等工程塑料的光学、力学等性能。具有优异的聚碳酸酯体系抗降解、抗黄变性能。

DR-2688 is specially designed plastic rutile grade  $TiO_2$  for polycarbonate. The special inorganic and organic surface treatments effectively solve the problems such as viscosity and brightness reduction, yellowing of color, and material embrittlement during processing of polymers like polycarbonate.





# 获奖企业: 默克光电材料(上海)有限公司

Winnier: Merck Display Materials (Shanghai) Co., Ltd.



默克是一家充满活力的科技公司,科学是我们做一切事情的核心。2022 年销售额达 222 亿欧元,在全球 66 个国家拥有 64200 名员工。 默克外观科技是领先的珠光效果颜料和功能性材料供应商之一,产品广泛应用于涂料,塑料,印刷,化妆品,食品与药品等工业中。

Merck is a vibrant science and technology company, with science at the heart of everything we do. In 2022, our sales reached 22.2 billion Euros, and we have 64,200 employees in 66 countries worldwide. Merck Surface Solutions is one of the leading suppliers of pearlescent effect pigments and functional materials, widely used in industries such as coatings, plastics, printing, cosmetics, food, and pharmaceuticals.

# 获奖产品: 激光打标助剂

Product: Iriotec® 8212

Iriotec® 8212激光打标母粒,专为尼龙/聚酰胺(PA)开发,使用尼龙12作为载体,不含三氧化二锑,可以实现深色且对比明显的激光标记,且不会改变尼龙的阻燃性能,基本不会影响相对漏电起痕指数CTI,可广泛应用于工程塑料,电子电气和汽车等领域。

Iriotec® 8212 is a laser granule which was especially developed for use in nylon/polyamide (PA), using nylon 12 as a carrier and without antimony trioxide. It allows for dark and high-contrast laser markings without compromising the flame retardancy of nylon. It has minimal impact on the Comparative Tracking Index (CTI) and finds widespread applications in engineering plastics, electronics, electrical, and automotive industries.





# 获奖企业:广东波斯科技股份有限公司

Winnier: Guangdong Bosi Sci. & Tec. Co., Ltd.



广东波斯科技股份有限公司创建于1998年,总部坐落于广州市,是一家集塑胶着色新技术、塑料功能新材料和全生物降解材料及制品的研发、生产和销售的国家级高新技术企业。

Guangdong Bosi Sci. & Tech. Co., Ltd. was founded in 1998, headquartered in Guangzhou city, is a national high-tech enterprise specializing in the research, development, production and sales of new plastic coloring technology, new plastic functional materials and biodegradable materials and products.

# 获奖产品:液体抗菌色母

Product: Liquid antibacterial masterbatch

一种液体抗菌色母,集抗菌与着色功能于一体。与绝大多数树脂相容性优良,使制品色彩艳丽、光泽度高,对材料性能无负面影响。环保,安全,操作简便,可帮助企业降低能耗,提高效率和产品质量。

A liquid antibacterial masterbatch, which integrates antibacterial and coloring functions. Owing to the excellent compatibility with the vast majority of resins, the product color is gorgeous, high gloss, and without negative impact on material properties. Environmental protection, safety, easy to operate, and can help enterprises reduce energy consumption, improve efficiency and product quality.





#### 获奖企业: 迈图高新材料集团

Winnier: Momentive Performance Materials Inc.



迈图是全球首屈一指的先进材料公司,专注于有机硅和特种产品的前沿领域。我们提供的解决方案旨在帮助推动客户的产品向前发展, 这些产品对生活的各个方面、各个领域、从日常生活到外太空产生深远影响。

通过每一项创新,迈图旨在创造一个更加可持续的未来。由先进的有机硅和特种解决方案组成地多种多样的产品组合,在提高众多行业的性能方面发挥着至关重要的作用,包括农业、汽车、航空航天、电子、能源、医疗保健、个人护理、消费品、建筑和施工等。

迈图高新材料公司是迈图控股公司的间接全资子公司,是全球最大的有机硅和有机硅衍生物生产商之一。

Momentive is a premier global advanced materials company with a cutting-edge focus on silicones and specialty products. We deliver solutions designed to help propel our customer's products forward —products that have a profound impact on all aspects of life, around the clock and from living rooms to outer space.

With every innovation, Momentive aims to create a more sustainable future. Our vast product portfolio is made up of advanced silicones and specialty solutions that play an essential role in driving performance across a multitude of industries, including agriculture, automotive, aerospace, electronics, energy, healthcare, personal care, consumer products, building and construction, and more.

Momentive Performance Materials Inc., an indirect wholly-owned subsidiary of MOM Holding Company, is one of the world's largest producers of silicones and silicone derivatives.

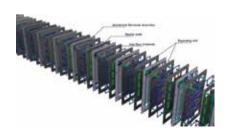
# 获奖产品: NEVSil LSR FC140, 氢燃料电池密封专用液体硅橡胶

Product: NEVSil LSR FC140, specialty elastomer for fuel cell sealing

Momentive开发了一款专用的NEVSil LSR FC140产品用于燃料电池双极板密封应用。该产品具有低粘度的特性,可降低注射压力,从而在制造成型过程中保护双极板基板。该材料与Momentive's XP81-A6361底涂产品配套使用时,可为不锈钢和石墨提供良好的粘结特性。与类似应用中使用的RTV产品相比,NEVSil LSR FC140产品技术具有明显的优势,因为它具有快速固化、注塑成型性和大大改善的压缩永久变形特性。

Momentive has developed a specialized NEVSil LSR FC140 technology for use in fuel cell bipolar plate sealing applications. The product possesses a lowviscosity, which allows decreased injection pressure and, therefore, protection of the bipolar plate substrates during manufacturing/molding. The material provides good bonding characteristics to both stainless steeland graphite when combined with Momentive's XP81-A6361 primertechnology. The NEVSil LSR FC140 technology provide a significant advantage versus RTV products utilized in similar applications due to the cure speed, injection moldability and greatly improved compression setcharacteristics.







# 获奖企业: 埃万特集团

Winnier: Avient Corporation



埃万特集团致力于提供专业并可持续的材料解决方案,化客户挑战为机遇,不断推陈出新,让世界变得更美好。

埃万特被授予ACC责任关怀®企业称号,此外,埃万特是清除塑料废弃物行动联盟的创始成员之一,并荣获最佳职场®称号。

Avient Corporation provides specialized and sustainable material solutions that transform customer challenges into opportunities, bringing new products to life for a better world.

Avient is certified ACC Responsible Care®, a founding member of the Alliance to End Plastic Waste and certified Great Place to Work®.

#### 获奖产品: Versaflex™ HC BIO BT218 热塑性弹性体

Product: Versaflex™ HC BIO BT218 Thermoplastic Elastomers (TPEs)

Versaflex™ HC BIO BT218 热塑性弹性体(TPE)是一种专为生物制药管材配制的可持续解决方案。该配方含有近 40% 的生物衍生物,与传统的石油基TPE相比,可在产品生命周期初始减少近25%碳足迹值。它通过了 USP VI 级和 ISO 10993-4, 5, 11 认证,具有热焊接性、抗扭结性和抗拉强度性能,还适用于伽马射线、高压灭菌和EtO灭菌。

Versaflex™ HC BIO BT218 thermoplastic elastomer (TPE) is a sustainable solutions that formulated specifically for biopharma tubing. The formulation contains nearly 40% bioderived content, resulting in a nearly 25 percent lower cradle-to-gate PCF than traditional petroleum-based TPEs. Certified for USP Class VI and ISO 10993-4, 5, 11, it provides weldability, kink resistance and tensile strength performance, and it is suitable for gamma, autoclave and EtO sterilization.





#### 获奖企业: 埃肯有机硅

Winnier: Elkem Silicones



1996年,原化工部星火厂通过重组加入蓝星公司。2007年,蓝星收购原法国罗地亚集团的有机硅业务。法国工厂先进的有机硅生产技术和生产配方逐步向中国转移,并在中国市场迅速发展。2018年,两家企业整合进入蓝星所属埃肯公司,成立埃肯有机硅。目前,埃肯有机硅在全球拥有14家研发中心,500多项专利技术,14个综合性生产基地,专注于特种有机硅领域研发创新,在高性能有机硅弹性体、纸张与薄膜离型涂层、纺织涂层以及技术密封等领域占据全球市场领导地位。

Elkem Silicones has more than 4200 employees dedicated to delivering your potential by providing you innovative silicone solutions with a personal touch. Elkem Silicones, a division of Elkem, is a global leader in fully integrated silicone manufacturing, operating 14 multi-functional manufacturing sites and 14 Research & Innovation centers around the globe. Elkem Silicones offers a full range of silicone technologies for diverse specialty markets including aerospace, automotive, construction, consumer goods, energy, healthcare, paper coatings, personal care and textiles. Elkem Silicones is committed to create new, innovative and green solutions and business models that promote a sustainable future. (www.elkem.com)

# 获奖产品: 低密度低摩擦系数固体硅橡胶BLUESIL™LDH 5133-XY

Product: Low density & Low friction coefficient BLUESIL™ HCR

BLUESIL<sup>™</sup> LDH 5133-XY是一种低密度低摩擦系数的硅橡胶,其低密度可达 0.78-0.85g/cm³,使其在应用中具备轻盈特性。动态摩擦系数和静态摩擦系数仅为 0.1-0.25之间,赋予产品出色的手感。它不仅适用于模压和挤出加工,还可与其他 硅橡胶混合使用,有效降低密度和摩擦系数,增强手感。该硅橡胶为乳白色,可轻松调配成各种颜色,满足不同设计需求。低VOC含量,不仅绿色环保,还能减少二次硫化时间,提高加工效率。

BLUESIL™ LDH 5133-XY is a low-density and low friction coefficient silicone rubber with a low density of 0.78-0.85g/cm<sup>3</sup>, make it lightweight in application. The dynamic friction coefficient and static friction coefficient are only between 0.1 and 0.25, giving the product an excellent feel. It is not only suitable for molding



and extrusion processing but can also be mixed with other silicone rubbers to effectively reduce density and friction coefficient, enhance hand feel. The silicone rubber is milky white and can be easily blended into various colors to meet different design needs. Low VOC content, not only green and environmentally friendly, but also reduces secondary post-cure time and improves processing efficiency.



# 获奖企业: 富强鑫(宁波)机器制造有限公司

Winnier: Fu Chun Shin (Ningbo) Machinery Manufacture Co., Ltd.



富强鑫(宁波)机器制造有限公司于2001年入驻宁波市江北投资创业中心,是台湾富强鑫集团在大陆地区的发展基地之一。公司占地面积约34000平方米(50亩),现有员工340人,分设9个部门。富强鑫主要生产高精密注塑成型机,依托台湾富强鑫专业的注塑机生产研发技术,建立标准化机制,通过ISO-9001、ISO14001、ISO45001、ISO50001及欧洲CE认证,拥有包括6项发明专利在内的33项专利,并获得浙江省省高新技术企业称号。

Fu Chun Shin (Ningbo) Machinery Manufacturing Co., Ltd. entered the Jiangbei Investment and Entrepreneurship Center in Ningbo in 2001, and is one of the development bases of Taiwan FCS Group in mainland China. The company covers an area of approximately 34000 square meters (50 acres) and currently has 340 employees, divided into 9 departments. FCS mainly produces high-precision injection molding machines, relying on Taiwan's professional injection molding machine production and research and development technology, establishing a standardized mechanism, and passing ISO-9001, ISO14001, ISO45001, ISO50001 and European CE certification. FCS has 33 patents, including 6 invention patents, and has been awarded the title of Zhejiang Province High tech Enterprise.

# 获奖产品: GW-2200R 二板式X型四射多组分注塑机

Product: Two-Platen X-Type Multi-Component Injection Molding Machine (with 4-injection)

GW-R系列为富强鑫新研发的大型二板式多组分注塑机,应汽配业轻量化趋势下贯穿式一体化车灯灯罩的市场需求。GW-R系列为了更广泛满足市场需求,研发出X型四角四射结构多组分解决方案。相比于之前的L型四射出方案,X型四角四射的占地空间小、注塑结构更为紧凑,四组注塑单元可适应多种模具的需求,进行双色、三色、四色产品的效率化弹性生产。

The GW-R series is a large two-platen multi-component injection molding machine newly developed by FCS, which meets the market demand for integrated car lampshades that run through the automotive parts industry under the trend of lightweight. In order to meet market demand more widely, the GW-R series has developed an X-shaped four-corner four-shot structure multi-component solution. Compared to the previous L-shaped four-shot solution, the X-shaped has a smaller footprint and a more compact injection molding structure. The four sets of injection units can adapt to the needs of various molds and achieve efficient elastic production of two-color, three color, and four color products.









# 获奖企业: 博创智能装备股份有限公司

Winnier: Borch Machinery Co., Ltd.

# BORCHE博创

博创是注塑成型装备和智能制造服务系统的专业设计制造服务商,产品广泛应用于新能源汽车、医疗大健康、智能物流、智能家电、精密3C电子等众多领域,在国内外均具有较高知名度,是注塑成型装备领域知名国产品牌供应商之一。

Borche is a professional designer and manufacturer of injection molding machines and intelligent manufacturing systems. Its products are widely used in the filed of new energy vehicles, medical health care, intelligent logistics, smart home appliances, precise 3C electronics etc. Borche is one of the well-known Chinese manufactuers in the field of injection molding machine.

#### 获奖产品: 博创物流托盘专用注塑机及整体解决方案

Product: B-PLT Pallet Injection Molding Machine and Turnkey Solution

博创B-PLT物流托盘专用机,采用二板技术与电动熔胶技术,锁模力1700~3600T,适用于市面全尺寸塑料托盘注塑场景。博创物流托盘智能注塑整体解决方案,具备高效节能、可靠稳定、智能互联、自动化等特点。注塑12.5kg托盘,平均周期低于75s。博创是塑料托盘智能注塑整体解决方案专家,提供全自动流水线设计与智能化、信息化注塑整厂规划,为您提供高效经济的整体解决方案。



Borche B-PLT Pallet Machine with the design of Two-Platen and Electric charging, covers a big clamping force from

1700T to 3600T, which is applicable for all types of plastic pallets in the market. B-PLT Pallet Injection Molding Machine and Turnkey Solution has the features of high efficiency, energy saving, reliable&stable, intelligent interconnection and automation. Take one 12.5kg pallet as an example, its average cycle time is less than 75 seconds. Borche is excellent to offer you an efficient and economical turnkey solution for your pallet production, and to offer the design and planning for full automatic assembly line and plant intelligent and informationization.



# 获奖企业: 泰瑞机器股份有限公司

Winnier: Tederic Machinery Co., Ltd.



泰瑞机器股份有限公司是一家拥有全球领先技术的智能装备制造商。作为国内首家A股主板上市的注塑机企业,泰瑞目前已为全球130+国家或地区用户提供了不同工艺的一站式智能注塑解决方案,是值得信赖的国际合作伙伴。

Tederic Machinery is an intelligent molding equipment manufacturer with world-leading technology. As the first injection molding machine company listed on the Main Board of Shanghai, China (603289·SH), Tederic has been focusing on the injection molding field, committed to providing users with one-stop intelligent solutions. Tederic has provided complex solutions of different processes to users in more than 130 countries or regions around the world, and is a trusted international partner for global users.

#### 获奖产品: NEO·H500b转模芯多层注塑机

Product: NEO·H500b rotary core multi-layer injection molding machine

针对车灯光学件领域精度、效率和可靠性三大行业难题,NEO·H500b创新提出了电动角式双射台与两板式锁模式注塑机的组合应用,开发了模块化精密转模芯结构,提高了产品设计灵活性;同时开发了转轴多工位精密旋转控制系统,凭借OptiSure™多层厚壁透镜注塑成型技术,以200s替代800s传统透镜注塑生产时间,提升了30%生产效率。目前NEO·H500b转模芯多层注塑机已为国际汽车零部件制造企业提供了优质的车灯光学件注塑解决方案。



In order to solve the three major problems in the field of precision, efficiency and reliability in the field of automative lighting optical products, NEO·H500b innovates

the combination application of electric Angle double injection table and two-plate lock mode injection molding machine, and develops the modular precision rotating mold core structure, which improves the flexibility of optical product design. At the same time, with the OptiSure™ multi-layer thick-wall lens injection molding technology, 200s replaces 800s traditional lens injection molding production times, which improves the production efficiency by 30%. At present, NEO·H500b rotary core multi-layer injection molding machine has provided high-quality injection molding solutions for international auto parts manufacturers.



# 获奖企业: 威猛巴顿菲尔机械设备(上海)有限公司

Winnier: Wittmann Battenfeld (Shanghai) Co., Ltd.



威猛集团是全球塑料行业中,注塑机、机械手以及周边设备制造商的领导者之一,总部位于奥地利维也纳。威猛集团在全球7个国家拥有9个制造基地,在全世界34个国家和地区有直属分公司。其产品包括注塑机、机械手及自动化、水流量调节器、模温机、机边粉碎机、模具除露机、除湿和微型干燥机、和中央供料系统等。

The WITTMANN Group's headquartered in Vienna/Austria, WITTMANN Group with 9 production plants in 7 countries. Additional sales and service companies are active in 34 facilities in important plastics markets around the world. Which product portfolio includes Injection molding machine, Robots and Automation systems, Water flow regulator, Temperature controllers, Granulators, Dryers, Mould defroster and Material conveying systems.

# 获奖产品: 威猛EcoPower B8X系列全电动注塑机

Product: All-electric Injection Molding Machines from WITTMANN EcoPower B8X Series

2023年10月威猛集团在 Fakuma 2023 展会上推出了全新的 EcoPower B8X 系列全电动注塑机,锁模力在55T~300T之间,采用节能、可靠、实用的模块化设计理念,适用于广泛的塑料加工领域。与前代机型相比,这款新型注塑机具有更高的能源效率、更广泛的注塑单元范围以及创新型驱动系统实现的更高精度。

New EcoPower B8X Series are officially presented at Fakuma 2023 by WITTMANN Group, which provide energy-efficient, reliable and functional modular designs, and could be applicable in wide range of plastics processing fields. By comparisonto predecessor models, this new machine model with clamping forces ranging from 55 to 300 t stands out by even greater energy efficiency, an extended range of injection units and higher precision with an innovative drive system.







#### 获奖企业: 海天塑机集团有限公司

Winnier: Haitian Plastics Machinery Group Co., Ltd.



海天塑机集团有限公司是全球注塑机市场领军人物——海天国际控股有限公司旗下子公司,专注于塑料加工行业中高端市场标准型应用。 以应用为导向的研发、提供合理市场价格并具可持续性的解决方案——这便是我们五十多年来所为之奋斗的事业。

Haitian Plastics Machinery Group Co., Ltd., a subsidiary of Haitian International Holdings Ltd., is a world market leader in the manufacture of injection-molding machines for standard applications in the medium and top-of-the-line segments of the plastic processing industry. Application-oriented research and development, a range of fair market prices plus sustainable solutions – this is and has been our profession for more than 50 years now.

# 获奖产品:海天MA5系列注塑机

Product: Haitian MA5 Injection Molding Machine

海天塑机全新推出的主力产品,节能性、干周期、可靠性、稳定性等多项性能指标大幅度提升。此系列机型拥有"出色的节能性、良好的安全可靠性、超强的机械部件、功能完善的人性化操作系统、超长的机器寿命"等性能特点。

Haitian Plastics Machinery has developed star Model of MA5 with the advantage of energy saving, eco-friendly, higher reliability and stability. The series of MA5 have the features such as excellent energy efficiency, good safety and reliability, super-strong mechanical parts, fully functional humanized operating system, long machine life.





# 获奖企业:广州盛广誉机械设备有限公司

Winnier: Guangzhou S-guangyu Machinery & Equipment Co., Ltd.



广州盛广誉机械设备有限公司是一家专门从事设计、制造液态硅橡胶(LSR)制品生产设备的厂家。公司生产的液态硅橡胶设备广泛用于医疗用品、运动器材、汽车配件、食品、电子、婴童用品、成人用品、厨具卫浴,高压电缆附件、绝缘子液态硅橡胶产品领域。专注和创新是我公司的宗旨,确保可以满足客户和市场以及个性化的需求。

Guangzhou Shengguangyu Mechanical & Equipment Co., Ltd. is a manufacturer specialized in the design and manufacturing of production equipments of liquid silicone rubber (LSR) products. The liquid silicone rubber equipments manufactured by the company are widely used in the areas of medical supplies, sports equipments, auto parts, food, electronic products, infant and children supplies, adult products, kitchen wares and bathroom accessories, high-voltage cable accessories, and liquid silicone rubber products of insulators. Focus and innovation are the tenet of our company to ensure that we can meet the demands of customers, the market, and personalization.

# 获奖产品: 立式液态硅胶三色三物料注射机

Product: Vertical LSR multi-injection molding machine

多色多物料式注射机:采用多站圆盘设计,拥有转动稳定、定位精确、成品易取出、配件埋入简易方便等优点,独立多物料射出系统,确保射出物料的稳定性。该类机适用性广,机台操作更人性化。内置硅胶模具加热温控,单独插座方便调节模具温度。可视化。同时增加了硅胶机专用防护装置,减少产品污染的同时,更易清洗!

Multi-molding injection machine: It has multi-station rotary design, stable rotation, accurate positioning, removal of finished products easily, embed the accessories simple and conveniently; independent multi-material injection system to ensure the stability of injection. The machine has wide applicability and more user-friendly operation. Built-in silicone mold heating temperature control, separate socket is convenient to adjust the mold temperature. Visualization. At the same time, the silicone machine special protection device is increased to reduce the product pollution and clean easily!





#### 获奖企业: 广东联升精密智能装备科技有限公司

Winnier: Lanson Precision Intelligence Equipment Technology Co., Ltd.



广东联升精密智能装备科技有限公司是一家专业从事精密机械装备研发与生产的国家级高新科技型企业,成立于2005年。公司配备了涵盖设计、生产、加工、装配及检测设备的一体化生产线,主要生产高精度注塑机和高性能铝镁合金压铸机为主。致力于为客户提供一体化的模压成型生产解决方案。

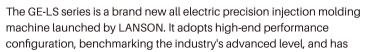
Founded in 2005, Lanson Precision Intelligence Equipment Technology Co., Ltd. is a national high-tech enterprise, covers an area of 100 thousand square meters, locating in the heaving industry city - Shunde, Foshan City.

Lanson has advanced equipment for designing processing, manufacturing and testing. Our major products are plastic injection moulding machines and die casting machines for aluminum and magnesium. We dedicate to provide professional turn-key moulding solution to customers.

#### 获奖产品:全电式精密注塑机

Product: All electric Injection Molding Machine

GE-LS系列是联升推出的全新全电式精密注塑机,采用高端性能配置,对标行业先进水平,具有高射速、高射压、节能高效、精密稳定等特点,搭载了卓越的智能控制系统、超高速响应动力系统覆盖绝大数的制品应用场景,为用户提供一体式交付服务。





characteristics such as high injection speed, high injection pressure, energy efficiency, precision stability, etc. It is equipped with excellent intelligent control system and ultra high speed response power system to cover the vast majority of product application scenarios, providing users with integrated delivery services.



#### 获奖企业: 杭州大禹机械有限公司

Winnier: Hangzhou TAYU Machinery Co., Ltd.



大禹为全球 5000 多家客户提供产品及技术支持服务,助力客户建立起高效率、低成本的竞争优势,范围涵盖汽车、3C、电子、医疗、工民建等众多领域。公司拥有浙江湖州、杭州及广东东莞三个生产基地,全国设有 30 多个办事处,并在德国及美国、墨西哥、印度、印度尼西亚、伊朗、马来西亚、越南、巴西、俄罗斯等 30 多个国家设有代理机构。

TAYU provides products and technical support services to more than 5000 customers around the world, helping customers to establish high efficiency and low cost competitive advantage, covering many fields such as automobile, 3C, electronic, medical, industrial and civil construction. The company has three production bases in Huzhou, Zhejiang province, Hangzhou and Dongguan Guangdong Province, with 30 offices throughout the country, and in Germany and the UnitedStates, Mexico, India, Indonesia, Iran, Malavsia, Vietnam, Brazil, Russia and other more than 30 countries with agent structure.

#### 获奖产品: 多功能双色立式注塑成型机

Product: Multi-functional two-color vertical injection molding machine

有着大禹"小神机"之称的多功能系列双色立式注塑成型机,最大的特点就是"一机多用",能够最大限度满足客户的柔性生产需求。该机型配备有两套独立的合模系统、两套独立的射出系统以及转盘和转塔系统,同时又配置了两套电控并通过巧妙的程序设计,可以实现4种不同的用机模式:1、标准双色机 2、双色四工位转塔机 3、标准转盘机 4、两台标准机

The most important feature of the multi-functional series of two-color vertical injection molding machines, known as Tayu's "Little God Machine", is that they are "multi-purpose", which can satisfy the flexible production needs of customers to the maximum extent possible. The machine is equipped with two sets of independent mold closing systems, two sets of independent injection systems, as well as turntable and turret systems, and at the same time, it is equipped with two sets of electronic controls and through clever program design, it can realize four different modes of use: 1) standard two-color machine 2) two-color four-station turret machine 3) standard turntable machine 4) two standard machines.





#### 获奖企业: 科倍隆(南京)机械有限公司

Winnier: Coperion (Nanjing) Machinery Co., Ltd.



科倍隆集团专注于配混与挤出、散装物料输送、计量喂料系统和服务,为客户提供塑料、化工、医药、食品等行业的定制化成套解决方案。

科倍隆(南京)机械有限公司负责生产、销售双螺杆挤出机并提供技术服务,而作为科倍隆集团全球三大研发中心之一,科倍隆南京有助 科倍隆集团更快更好地为中国及亚洲的客户提供系统解决方案。

The Coperion Group is specialized in providing tailor-made solutions for compounding & extrusion, bulk material handling, feeding technology and service for the plastics, chemicals, pharmaceutical and food industries.

Coperion (Nanjing) Machinery Co., Ltd. is mainly responsible for the manufacture, selling, and service for twin screw extruder. As one of the three R&D centers around the world of Coperion group, Coperion Nanjing can provide better system solution to China and Asian customers.

#### 获奖产品: STS 75 Mc PLUS 双螺杆挤出机

Product: STS 75 Mc PLUS Twin Screw Extruder

- > 第四代STS技术,科倍隆德国工程设计
- > 比扭矩13.6 Nm/cm3, 最高产量可达 3 t/h
- > 根据设计和应用需要, 螺杆转速可达900 min-1
- > 科倍降德国原装进口冷锻芯轴
- > 机头和工艺段采用加热棒设计,更加节能
- > 科倍隆自制的高精度工艺段,多种材质可供选择,满足耐磨耐腐需求
- > 优异的自清洁啮合螺杆,更窄的熔体停留时间分布曲线,产品品质更高
- > 欧洲品牌的高性能传动箱以及安全联轴器
- > 更强壮的底座可承载更高的扭矩,安全可靠
- > TUV CE认证
- > 4th generation of STS technology with Coperion Engineering from Germany
- > Specific torque of 13.6 Nm/cm<sup>3</sup> enabling throughput rates of up to of 3 t/h
- > Screw speeds of up to 900 min-1 depending on the machine configuration and application
- > Cold hammered shafts from Coperion Germany
- > Die head and process section with heating cartridges for highest energy efficiency
- > Coperion's in-house, high-precision process sections, available in a variety of materials to meet the needs of wear and corrosion protection
- > Excellent self-wiping co-rotating screws, narrower melt residence time distribution curve, highest product quality
- > High-performance gearboxes and safety couplings from European brands
- > Stronger base frame for higher torque, safety and reliability
- > TUV CE certificate





#### 获奖企业:精诚时代集团有限公司

Winnier: JCTIMES GROUP



精诚时代集团,是一家专注于平模头及挤出生产线配套设备领域研发生产与技术应用的企业。公司拥有精诚、JCTIMES、古迪、甲南等子品牌,市场占有率在中国中高端市场超过70%。通过运用全球同步的流体模拟分析、六轴加工及精密磨床等核心技术优势,产品广泛应用于新能源(太阳能、动力汽车、锂电池)、电子、汽车、建筑材料、航天航空、医疗卫生、食品包装等,为板材、薄膜等多个领域提供高质量解决方案。

JCTIMES is a leading enterprise dedicated to the research, development, and production of flat die heads and supporting equipment for extrusion production lines, the company boasts subsidiary brands such as Jingsheng, JCTIMES, Gudi, and Jianan, holding a market share exceeding 70% in the high-end markets of China.

Utilizing cutting-edge technologies such as global synchronous fluid simulation analysis, six-axis machining, and precision grinding, Our products find extensive applications in new energy (solar power, electric vehicles, lithium batteries), electronics, automotive, construction materials, aerospace, healthcare, and food packaging, providing high-quality solutions across various fields like sheet, film, and thin-film.

#### 获奖产品: 激光硬化和电镀相结合表面处理工艺

Product: A new surface treatment combining laser hardening with chromeplating

该工艺对流道指定区域表面采用激光硬化,非激光硬化区域采用电镀,并将两者流道区域进行无缝衔接,通过精磨、精抛后流道表面粗糙度达到Ra0.015-0.025 μm, 模唇前端的尖角处达到R0.01mm以下,减少了聚合物在模头唇口的拉丝、挂料现象,提高聚合物在模唇出口的均匀性,有效提升生产的产品品质。

The process employs laser hardening on the specified area surface of the flow channel, while the non-laser-hardened region adopts electroplating. The two flow channel regions are seamlessly connected, achieving a surface roughness of Ra 0.015-0.025µm through precision grinding and polishing. The sharp angle at the front end of the die lip is below R0.01mm, reducing polymer drawing and



material hanging phenomena at the die lip, improving the uniformity of the polymer at the die lip outlet, and effectively enhancing the product quality in production.



#### 获奖企业:江苏卓越智能工程有限公司

Winnier: Jiangsu Zhuoyue Intelligent Engineering Co., Ltd.



江苏卓越智能工程有限公司于2021年12月20日成立,专注于智能化挤出配混系统的研发与制造并立志在未来转变为智能化系统集成解决方案提供商。卓越通过与国内知名研究机构合作将良好的技术、精湛的工艺转化到产品之中。

Jiangsu Zhuoyue Intelligent Engineering Co., Ltd. was established on December 20, 2021, focusing on the R&D and manufacturing of intelligent extrusion compounding systems, and is determined to transform into an intelligent system integration solution provider in the future. Through cooperation with well-known domestic research institutions, Zhuoyue transforms good technology and exquisite craftsmanship into products.

#### 获奖产品: HTS SUPER 65双螺杆挤出机

Product: HTS SUPER 65 Twin Screw Extruder

HTS SUPER65双螺杆挤出机是卓越2023年最新开发的超高转速 (900~1200rpm), 超高扭矩 (扭力系数f=16.5N m/cm3) 产品。整机采用全新搭建的ZY-TOUCH 2.0智能操作系统,可集成全生产线,同时可实现PC端、SaaS端、APP端实时检测控制,完全实现信号通讯互联互通。



HTS SUPER65 twin screw extruder is the latest ultra-high speed

(900~1200rpm) and ultra-high torque (torque coefficient f=16.5N m/cm3) products developed by Zhuoyue in 2023. The whole machine adopts the newly built ZY-TOUCH 2.0 intelligent operating system, which can integrate the whole production line, and can realize real-time detection and control of PC, SaaS and APP, and fully realize signal communication interconnection.



#### 获奖企业: 克劳斯玛菲机械(中国)有限公司

Winnier: KraussMaffei Machinery (China) Co., Ltd.



#### 克劳斯玛菲- 先锋塑料

克劳斯玛菲是全球橡塑生产、加工机械和系统的领先制造商之一。创立至今已有180多年的历史,我们提供的服务涵盖所有领域的注塑、挤出和反应成型机械设备和技术,这让克劳斯玛菲在行业中脱颖而出。凭借我们在标准化和个性化产品、工艺、数字化和服务解决方案方面的创新能力,我们助力客户在整个增值链上获得持续的附加价值。自1838年以来,总部一直设在慕尼黑。

#### KraussMaffei - Pioneering Plastics

KraussMaffei is among the world's leading manufacturers of machinery and systems for the production and processing of plastics and rubber. Our brand stands for cutting-edge technologies – for more than 180 years. Our range of services covers all areas of injection molding machinery, extrusion technology and reaction process machinery. With the high innovative power of our standardized and individual product, process, digital and service solutions, we can guarantee customers sustained additional value over the entire value-adding chain. Headquarter has been in Munich since 1838.

#### 获奖产品:管道挤出新应用——医疗&芯片行业

Product: New applications for pipe extrusion - Medical & Chip industry

在您的挤出系统中,双螺杆和单螺杆挤出机是性能强大的心脏。通过配备集成式控制柜和操作台的模块化结构,克劳斯玛菲可为各种应用量身定制挤出机,满足所有市场需求。

36D系列单螺杆挤出机将高生产效率和高管材质量高度结合,处理单元长为30 L/D的单螺杆挤出机设计灵活,装配与各种原材料相匹配的高性能螺杆,尤其适用于特殊材料加工。所有挤出机均装配一个高性能的U型结构齿轮箱并通过不同的驱动方案(交流或直流电机)带来高灵活性。36单螺杆挤出机系列的功能原理能可靠地排除热不均匀性,其持续稳定的低熔体温度将带来理想的熔体热均匀性,保证高良品率和高生产率。



#### 获奖企业: 广东宝路盛精密机械有限公司

Winnier: Guangdong Blesson Precision Machinery Co., Ltd.



宇路区

广东宝路盛精密机械有限公司是一家专业从事塑料挤出设备的研发、制造、销售和服务的高科技制造商,致力于提供高端塑料机械。公司以高素质的管理团队为主导,拥有一批经验丰富的研发工程师和一支机电服务工程团队,为全球客户提供专业的机器和服务。通过持续的市场调研、研发投入、项目实施、客户跟踪和持续改进,宝路盛获得了国内外客户的良好声誉。

秉承"诚信创新、质量第一、以客户为中心"的经营理念,为国内外客户提供以下优质的产品和服务。

主要经营的产品为塑料管材挤出生产线、流延膜生产线、塑料型材及面板生产线、塑料造粒设备、自动化设备等相关辅助设备。

Guangdong Blesson Precision Machinery Co., Ltd. is a high-tech manufacturer who specializes research & development, manufacturing, sales and service of plastic extrusion equipment and commits to provide high-end plastic machines. Leading by a high-quality management team, the company owns a group of experienced R&D engineers and a mechanical and electrical service engineering team to provide professional machines and service for customers all over the world. Through continuous market research, R&D investment, project implementation, customer tracking and continuous improvement, Blesson receives an excellent reputation by customers from both domestic and overseas.

Adhering to the business philosophy of "Integrity and Innovation, Quality First and Customer Centered", we provide the following high-quality products and servicefor domestic and foreign customers.

Plastic pipe extrusion production line, cast film production line, plastic profile and panel production line, plastic pelletizing equipment, automation equipment and other related auxiliary equipment.

#### 获奖产品: 锂电池隔膜在线热处理纵向拉伸生产线

Product: Lithium battery separator online heat treatment longitudinal stretching production line

干法单向拉伸工艺是以PP或PE为主要原料,制备出低结晶度的高取向聚丙烯或聚乙烯薄膜,在高温退火获得高结晶度的取向薄膜。这种薄膜先在低温下进行拉伸形成微缺陷,然后在高温下使缺陷拉开,形成微孔。主要生产厚度为10µm至40µm不同规格的锂离子电池隔膜。干法单向拉伸工艺锂离子动力锂电池隔膜的规模化生产,可同时拉伸多层以上的基膜,在大幅提高生产效率的同时大大降低了生产成本。

广东宝路盛精密机械有限公司研发制造的锂电池隔膜在线热处理纵向拉伸生产线,性能稳定,生产效率高,自动化程度高。生产出来的锂离子电池隔膜,广泛应用于动力电池,储能电池及数码电池。目前产线已经进入量产阶段,首批产线已经成功交付并顺利投产,在业界得到了客户高度的认可。



Dry unidirectional drawing process is based on PP or PE as the main raw material to prepare high orientation polypropylene or polyethylene film with low crystallinity, and obtain high crystallinity oriented film by annealing at high temperature. The film is first stretched at low temperatures to form microdefects, and then pulled apart at high temperatures to form micropores. The main production thickness of 10  $\mu$  m to 40  $\mu$  m different specifications of lithium ion battery separator. The large-scale production of lithium ion power lithium battery separator by dry unidirectional drawing process can stretch more than multiple layers of base film at the same time, which greatly improves production efficiency and greatly reduces production costs.

Guangdong Baolusheng Precision Machinery Co., Ltd. developed and manufactured lithium battery diaphragm online heat treatment longitudinal stretching production line, stable performance, high production efficiency, high degree of automation. The produced lithium-ion battery separator is widely used in power batteries, energy storage batteries and digital batteries. At present, the production line has entered the mass production stage, and the first production line has been successfully delivered and put into production, which has been highly recognized by customers in the industry.



#### 获奖企业: 上海熙视光电科技有限公司

Winnier: Suresee Photonics Technology (Shanghai) Co., Ltd.



熙视光电是一家致力于机器视觉温控自动化开发的公司,位于上海市闵行区元江路3883号上海航天创新创业中心。

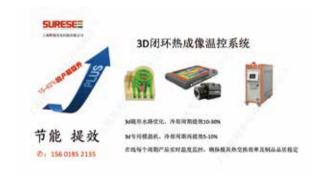
公司目前是上海市政府"高新技术企业"、"上海市双软企业"、"闵行区人工智能产业",成立至今公司已获得23项专利,12项软件著作权,产品有:世界首台双光模具监视器、Ai+机器视觉、Flexsee™智能视觉系统、3D闭环热像模温系统、汽车LED灯检视觉工作站、机器人2D/3D视觉系统。

#### 获奖产品: SV600virTC 3D增效随形水路闭环热成像温控系统

Product: SV600virTC 3D THERMAL IMAGING TEMPERATURE CONTROL SYSTEM

SV600virTC从提供性价比设备到为用户创造新价值。

熙视光电开创性的发明了SV600virTC系统,实时采集每个周期的产品温度,模具水道的流量、判断其模温温度一致性、趋势性,实时的与3d闭环模温机形成预管理控制,使其稳定高效的生产。





### 获奖企业: 苏州模流分析软件有限公司

Winnier: Suzhou Moldex Analysis Software Co., Ltd.



Moldex3D是全球领先CAE注塑成型工艺智能制造整合暨研发公司,致力于从塑料模流仿真、云端材料大数据、智能生命周期管理系统、智能制造与人工智能的全面整合服务,协助个人与行业企业共同成就智能事业!

Moldex3D is the world's leading CAE injection molding process intelligent manufacturing integration and research and development company. Over the years, Moldex3D has been committed to providing comprehensive integration services from injection mold simulation, cloud-based material data, intelligent solution lifecycle management, smart manufacturing and artificial intelligence. We help individuals and companies to achieve smart business together!

#### 获奖产品: Moldex3D 智能仿真生命周期管理系统

Product: Moldex3D iSLM

Moldex3D iSLM (intelligent Solution Lifecycle Management) 为针对「模具设计」与「塑料成型」打造的数据管理平台,可记录产品开发流程、保留每个CAE模拟项目数据、撷取重要参数便于快速搜寻与比对。透过建立大数据库,企业能掌握工作分配、项目时程,并且能个人化建立质量指针,快速判断产品质量。

Moldex3D iSLM (Intelligent Solution Lifecycle Management) is a data management platform designed for "mold design" and "plastic molding", which can record the product development process, retain data from each CAE simulation project, and extract important parameters for quick searching and comparison. By establishing a large database, companies can manage work assignments, project schedules, and personalize quality indicators to quickly assess product quality.



获奖企业: 智化科技

Winnier: Chemical.AI



智化科技成立于2018年,专注于AI赋能化学创新,利用人工智能和化学大数据,通过化学合成的数字化、智能化、自动化,大幅度提高 化学合成效率,配合人工智能技术和机器人,为新材料等领域提供领先的产品服务及解决方案。

Founded in 2018, Chemical.Al leverages proprietary algorithms, comprehensive chemical data, and cutting-edge robotic lab automation to enhance chemical synthesis efficiency. With offices in Shanghai, Wuhan, Singapore, Boston, and Toronto, Chemical. Al has a team of 150 multidisciplinary experts skilled in retrosynthetic planning, automation, and lab digitalization, coupled with a rich database of chemical information and algorithms to pave the way in delivering advanced solutions across diverse sectors such as pharmaceuticals, biomedicine, chemical engineering, and new materials.

## 获奖产品: Chemical.AI解决方案

**Product: Chemical.Al Solutions** 

Chemical.AI解决方案包含AI辅助逆合成路线设计平台ChemAIRS,实验室智能化管理系统ChemAIOS,以及实验室人工智能自动化解决方案ChemAIoT,利用AI算法和化学大数据,全流程赋能实验室自动化,提升研发效率和成功率,目前在材料领域有着良好的应用。

Chemical.Al solutions include ChemAIRS, ChemAIOS and ChemAIOT. Leveraging the power of Al, ChemAIRS can design multiple synthetic routes for a target molecule within minutes and provide diverse viable synthetic strategies. ChemAIOS is an intelligent lab management system that helps with



project and inventory management as well as data ecosystem building. ChemAloT provides AI + automation solutions for chemical labs. With fully integrated software and hardware automation workflow, the lab supports 24/7 high throughput experiments and optimizations of conditions and processes. The capabilities of Chemical.



# 获奖企业:数禺(上海)科技有限公司

Winnier: Shuyu (Shanghai) Technology Co., Ltd.



数禺科技致力于打造业界领先的CAD/CAE及一体化工业软件,是一家工业软件结合人工智能的科技公司。公司专注于注塑模具领域,为塑料模具设计、仿真及生产提供专业的模流工业软件及解决方案,并已发布业界领先的智能模流云平台。

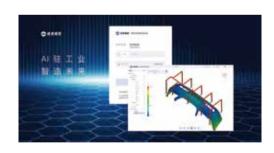
Shuyu Technology is committed to creating industry-leading CAD/CAE and integrated industrial software. It is a technology company that combines industrial software with artificial intelligence. The company focuses on the field of injection molds, providing professional mold flow industrial software and solutions for plastic mold design, simulation, and production, and has released the industry-leading intelligent mold flow cloud platform.

## 获奖产品:数禺模塑智能模流云平台

Product: SHUYU MOLDSOUL

数禺模塑是数禺科技推出的全球首款基于AI技术的智能模流云平台,使用一套模型 贯穿设计和仿真全流程,深度学习用户数据,实现模具设计、仿真的信息化、自动 化和智能化,极大提升企业效率。

Shuyu MoldSoul is the world's first Al-based intelligent modeling cloud platform launched by Shuyu Technology. It uses a set of models to run through the entire design and simulation process, deep-learning user data, realizing the informatization, automation, and intelligence of mold design and simulation, greatly improving enterprise efficiency.





#### 获奖企业: 上海松耐智能设备有限公司

Winnier: Shanghai Sonner Intelligent Equipment Co., Ltd.



松耐于2002年成立于上海,专业从事配方计量专业设备和系统的研发、设计、生产、营销及售后服务。产品广泛应用于新能源,化工&化学,塑料及制品,医药&食品等众多领域,形成了多元化、跨国际的综合业务链。

Founded in Shanghai in 2002, Sonner is an industry-leading manufacturing enterprise specialized in the research, development, design, production, marketing and after-sales service of specialized equipment and systems for recipe measurement. Its products are widely used in many fields such as new energy, chemical industry, plastics products, medicine & food, etc., Sonner occupies a certain market share in Europe, Southeast Asia and other places, forming a diversified, cross-international comprehensive business chain.

#### 获奖产品: COMPACT 失重喂料混料工作站

Product: Compact-M dosing and blending system

松耐针对胶膜原料和功能性母粒的计量,提供标准的COMPACT失重喂料混料工作站,每条生产线可同时配置2-4个精密单螺杆失重计量工位,产量最高可达1500kg/h,喂料精度达到0.25%,是挤出流延薄膜加工的理想成熟的解决方案。

Sonner provides a standard COMPACT weight-loss feeding and mixing workstation for measuring adhesive film raw materials and functional masterbatches. Each production line can be equipped with 2-4 precision single screw weight-loss measurement stations simultaneously, with a maximum output of 1500kg/h and a feeding accuracy of 0.25%. It is an ideal and mature solution for extrusion casting film processing.





#### 获奖企业: 张家港市锦越机械有限公司

Winnier: Zhangjiagang Jin Machine Co., Ltd.



锦越机械是一家专注于干燥和集中输送研发的高新技术企业,拥有三十多项专利技术。其基于全面的机械控制体系,实现了超低能耗。 同时,公司以迅速的售后反应和提供远程控制服务,为客户带来卓越的体验。

JIN MACHINE is a high-tech enterprise specializing in research and development of drying and centralized conveying, with over 30 patented technologies. It is based on a comprehensive mechanical control system, achieving ultra-low energy consumption. At the same time, the company provides excellent customer experience through rapid after-sales response and remote control services.

#### 获奖产品: SIGMA 系列模块化干燥主机

Product: SIGMA series modular dryers

模块化除湿干燥机是一种高效、灵活的工业塑料干燥设备,它采用了模块化设计理念, 能够根据生产需求和环境条件灵活调整设备运行程序,利用远程控制和检测系统,智能 低露点切换模式,以达到最优的干燥效果和极少的能耗。

SIGMA series modular dryer is an efficient and flexible industrial plastic drying equipment that adopts a modular design concept. It can flexibly adjust the equipment operation program according to production needs and environmental conditions, use remote control and detection systems, and intelligent low dew point switching mode to achieve optimal drying effect and minimal energy consumption.





#### 获奖企业: 科思创(上海)投资有限公司

Winnier: Covestro (Shanghai) Investment Co., Ltd.



科思创是全球领先的高品质聚合物及其组分的生产商之一。依托创新的产品、工艺和方法,公司在众多领域帮助促进可持续发展和提高生活品质。科思创在全球范围为交通出行、建筑和生活起居以及电子电气等重要行业的客户提供服务。此外,科思创聚合物还应用于运动体闲、化妆品和医疗健康等领域,以及化工行业本身。

公司致力于实现全面循环,目标于2035年实现气候中性(范围1和2)。2022 财年,科思创销售额达到180亿欧元。截至2022年底,科思创在全球拥有50个生产基地,约18000名员工(按全职员工计算)。

Covestro is one of the world's leading manufacturers of high-quality polymer materials and their components. With its innovative products, processes and methods, the company helps enhance sustainability and the quality of life in many areas. Covestro supplies customers around the world in key industries such as mobility, building and living, as well as the electrical and electronics sector. In addition, polymers from Covestro are also used in sectors such as sports and leisure, cosmetics and health, as well as in the chemical industry itself.

The company is committed to becoming fully circular and is striving to become climate neutral by 2035 (scope 1 and 2). Covestro generated sales of EUR 18 billion in fiscal 2022. At the end of 2022, the company had 50 production sites worldwide and employed approximately 18,000 people (calculated as full-time equivalents).

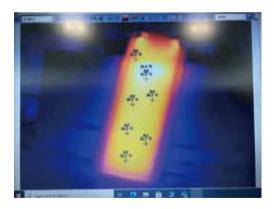
#### 获奖产品:聚碳酸酯表面透明导电技术的开发及相关应用开发

Product: Transparent conductive technology development on the polycarbonate surface and relevant application development

"聚碳酸酯表面透明导电技术"是一种通过特殊工艺在透明的聚碳酸酯本体表面敷设多种纳米层级和微米层级的功能层,从而在制品表面获得整面均匀的、较低的方阻,在直流电的驱动下可以产生较高的电功率;同时不仅不会干扰可见光和近红外波段的穿透,而且依旧保持极高的透过率。

科思创所开发的APEC(雅霸)聚碳酸酯具有特殊的高透明和高耐热特点是实现透明导电的核心技术之一。目前科思创和合作伙伴"无锡鑫巨宏"已经将基于APEC的透明导电技术应用于激光雷达的加热视窗量产应用。

"Polycarbonate surface transparent conductive technology" is a special process of laying various nano and micro level functional layers on the surface of transparent polycarbonate bodies, so as to obtain a uniform and low square resistance on the surface of the product. Under the drive of direct current, it can produce higher electrical power; At the same time, it not only does not interfere with the penetration of visible light and near-infrared bands, but also maintains extremely high transmittance.



The APEC (雅霸) polycarbonate developed by Covestro has special high transparency and high heat resistance characteristics, which is one of the core technologies for achieving transparent conductivity. At present, Covestro and its partner Wuxi Xin Giant Macro company have applied APEC based transparent conductive technology to the heating glazing application of LiDAR.



#### 其他相关创新产品/技术 Other Innovative Products/Technologies

#### 获奖企业: 成都唛环科技有限公司

Winnier: Chengdu Qinhuan Technology Co., Ltd.



成都嗪环科技有限公司,简称"嗪环科技",是一家专业从事抗菌保鲜新材料技术与产品研发的科技型企业。公司研发实力强劲,研发团队由中科院、德国材料学博士领衔,团队海归博士比例超过60%。

嗪环科技与全球多个研究院所深度合作,已自主申请/授权国家发明专利共计18项含国际PCT 1项,拥有完善的知识产权与强大的创新实力。

嗪环科技深耕"抗菌保鲜技术"多年,自主开发的新型无机非金属抗菌材料在材料学基础研究中获得了重大突破,直击生鲜保鲜核心——解决微生物滋生,自源性乙烯自熟,食品安全等难题。该技术现已成功入选沃尔玛全球食品创新平台,在食品保鲜领域处于全球领先水平。

Chengdu Qinhuan Technology Co., Ltd., abbreviated as "Qinhuan Technology", is a technology-based enterprise specializing in the research and development of antibacterial and fresh-keeping new material technology and products. The company has strong research and development capabilities, with a research and development team led by PhDs from the Chinese Academy of Sciences and German Materials Science. The proportion of overseas returnee PhDs in the team exceeds 60%.

Qinhuan Technology has deep cooperation with multiple research institutes around the world, and has independently applied/authorized a total of 18 national invention patents, including 1 international PCT. It has complete intellectual property rights and strong innovation capabilities.

Qinhuan Technology has been deeply cultivating "antibacterial and preservation technology" for many years, and its independently developed new inorganic non-metallic antibacterial materials have made significant breakthroughs in basic research of materials science, directly addressing the core of fresh preservation - solving problems such as microbial growth, self ripening of self sourced ethylene, and food safety. This technology has been successfully selected into Walmart's global food innovation platform, and is a global leader in the field of food preservation.

#### 获奖产品: 嗪环新型抗菌保鲜包材

Product: Qinhuan New Antibacterial and Freshness Preserving Packaging Materials

- 1、高效抗菌功能:抗菌率最高可达99.999%,有效抑制微生物滋生造成腐败。
- 2、乙烯分解功能:特有乙烯分解功能(接近70%),避免果蔬过熟腐坏。
- 3、优良阻隔性能:阻隔氧气避免氧化,保持水分减少失重,保持新鲜外观。
- 4、安全绿色环保:全球首个零金属添加抗菌保鲜材料,且可多次循环利用。
- 5、应用范围广泛:系列产品已覆盖生鲜水果、蔬菜、肉类、预制菜等保鲜需求。
- 6、专业团队开发: 领先的全球化开发团队, 已申请多余项发明专利, 专业可靠。
- 7、可定制化服务:可提供保鲜包材定制化服务,适用更多规格尺寸与应用场景。
- Efficient antibacterial function: The highest antibacterial rate can reach 99.9999%, effectively inhibiting microbial growth and causing spoilage.
- Ethylene decomposition function: It has a unique ethylene decomposition function (nearly 70%), which prevents fruits and vegetables from being too ripe and rotten.
- 3. Excellent barrier performance: blocking oxygen to avoid oxidation, maintaining moisture to reduce weight loss, and maintaining a fresh appearance.
- 4. Safe, green and environmentally friendly: the world's first zero metal added antibacterial and fresh-keeping material, which can be recycled multiple times.
- 5. Widely applicable: The series of products has covered the preservation needs of fresh fruits, vegetables, meat, pre made vegetables, and other fresh products.
- 6. Professional team development: A leading global development team that has applied for multiple invention patents and is professional and reliable.
- 7. Customizable services: We can provide customized services for fresh-keeping packaging materials, suitable for more specifications, sizes, and application scenarios.







# 荣格工业传媒 荣格工业传媒

作为专业的B2B工业资讯提供者及全媒体解决方案引领者,荣格工业传媒自1998年成立,26年来,一直专注于为B2B工业企业提供高质量的内容、专业的行业知识及优质的服务,通过提供从平面媒体到一站式全媒体的解决方案,为行业专家、供应商及用户建立了有效积极的联接,极大地促进了工业发展。

目前拥有13个中国办事处(含中国香港地区、中国台湾地区),以及新加坡、菲律宾办公室。

我们探索行业创新,关注客户及读者的需求,推动工业发展。



#### 荣格技术创新奖

自2006年成功举办以来,以其公正、客观的评选流程受到业界的广泛关注,影响力不断扩大;活动旨在通过表彰业界具有突出贡献的创新产品和技术,并为拥有创新技术的企业提供品牌曝光机会,鼓励更多企业投入技术创新,以提高生产力、经济效益,给用户提供更大便利,达到绿色环保、可持续发展的目的。

荣格技术创新奖已逐步涵盖食品饮料、塑料、金属加工、涂料、个人护理品、激光和智能制造等行业,是中国具有专业性和影响力的工业 行业技术奖项。

# See You Next Year!





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