

出类拔萃的**华帅特®** 亚克力

OUTSTANDING **HUASHUAITE® PMMA**

亚克力制造专家

PMMA Manufacturing Specialist



*The First-class Production Line
of Cast PMMA in Asia*



华帅特亚克力板材
采用全新三菱原料
Adopt Mitsubishi Raw Materials

亚克力制造专家
PMMA Manufacturing Specialist

为您的工程提供可靠 的亚克力材料

Provide reliable PMMA materials
for your project

华帅特® 亚克力
Huashuaite® PMMA

亚克力，简称 PMMA(Polymethyl Methacrylate)，又称之为压克力 (Acrylic)，英文缩写 PMMA，具有高透明度，轻质，易于机械加工等优点，是平常经常使用的玻璃替代材料。有突出的耐老化性；它的比重不到普通玻璃的一半，抗冲击能力却高出几倍；它有良好的绝缘性和机械强度；对酸、碱、盐有较强的耐腐蚀性能；且又易加工；可进行粘接、锯、刨、钻、刻、磨、丝网印刷、喷砂等多样化工艺加工，亦可进行热弯处理后制成各式各样的亚克力制品。



创享科技生活！

Science Create Better Life



华帅特新材料科技

浙江华帅特新材料科技有限公司创建于 1998 年，是一家专业从事研发、生产和销售新型塑料建材的国家级高新技术企业及浙江省最具成长潜力百佳企业、浙江省工商企业信用 AAA 重合同守信用单位，2006 年被认定浙江省著名商标。公司主要产品有亚克力板材、聚碳酸酯（PC）板、PC 风屏障系统，为国内桥梁风屏障第一供应商、国内最大的 PC 板生产企业之一，且拥有亚洲一流的大型亚克力板生产线的企业，领先业界。公司现有占地面积 150 亩，员工 250 余人，资产达 1.56 亿。

年产浇铸亚克力 6 万吨
全新第 3 代亚克力先进生产线 技术改造成功投产

Annual production of 60,000 tons of PMMA
Brand new and advanced third-generation PMMA production line technological transformation was successfully completed and put into operation

先进大型亚克力生产线 Advanced Large PMMA Production Line



ISO 9001:2015 CERTIFIED

华帅特拥有一流的生产制造设备，具备完善的 ISO9001:2015质量管理体系，以及专业的管理团队，确保出产的亚克力质量优异。

HUASHUAITE has first-class manufacturing equipment, a perfect ISO9001:2015 quality management system, and a professional management team to ensure the quality of PMMA produced.



国家级高新技术企业
National high-tech enterprise



产品质量国家免检
Product quality free of national inspection



AAA 重合同守信用单位
AAA creditable entity

Huashuaite New Material Technology

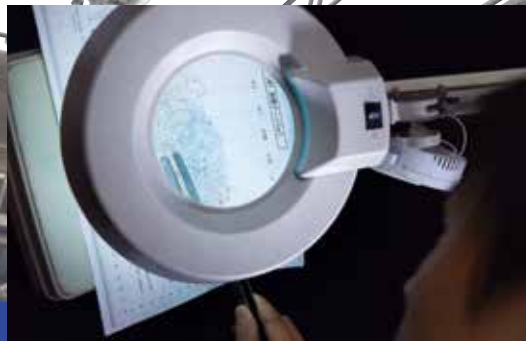
Founded in 1998, Zhejiang HUASHUAITE Special New Material Technology Co., Ltd. is a national high-tech enterprise specializing in R&D, production and sales of new plastic building materials as well as one of the top 100 most potential enterprises in Zhejiang Province, recognized as the most contract respecting company with AAA grading. In 2006, HUASHUAITE was recognized as a famous trademark in Zhejiang Province. The company's main products are PMMA sheets, polycarbonate (PC) sheets, PC wind barrier systems and the enterprise is the first supplier for bridge wind barriers in China, one of the largest PC sheet manufacturers in China, and has a first-class large-scale PMMA sheet production line in Asia, leading the industry in the world. The company covers an area of 150 Chinese acres, with more than 250 employees and assets of 156 million RMB.





High starting point, High investment,
High technology

高起点、高投入、高技术



发明专利
Patent of
invention

3

实用新型专利
Patent for utility
models

8

外观设计专利
Patent for
appearance design

4



声屏障国家标准
制定企业



各型产品专利
15 多项



产学研平台
建设完备



国家星火计划
项目企业



国家创新基金
项目企业

公司自创建以来,始终以“高起点、高投入、高技术”为立足点,不断加大科技投入及提升产品的研发、创新平台。同时,公司又坚持走自主开发与合作开发相结合的道路,多年来以高新技术研发中心为创新平台,与上海同济大学、浙江大学及清华大学、中国科学院长春应用化学研究所建立紧密的“产学研”合作关系,不断开发新产品,应用新工艺、新技术。近年来,已成功开发的新产品 30 几项,多项被列入国家级星火计划及国家创新基金项目。在开发新产品的过程中,申请并获得受理或授权的专利 22 项,已取得发明专利 3 项,实用新型专利 8 项,外观设计专利 4 项。

Since its establishment, Huashuaite has always been based on the philosophy of high starting point, high investment for high technology as it continuously increases investment in science and technology and enhances the research and development and innovation platform of products. At the same time, the company is dedicated to development through its independent and collective efforts. Over the years, the high-tech R&D center has been used as an innovation platform where collaborative ties has been established and maintained with Shanghai Tongji University, Zhejiang University and Tsinghua University, and Changchun Institute of Applied Chemistry under the Chinese Academy of Sciences. New products are constantly developed. New processes and new technologies are constantly applied. In recent years, more than 30 new products have been successfully developed, and many of them have been included in the National Spark Program and the National Innovation Fund Project. In the process of developing new products, 22 patents have been applied for, filed or granted, and 3 invention patents, 8 utility model patents and 4 design patents have been obtained.



为多项国家重点建设项目设计制造
亚克力应用产品

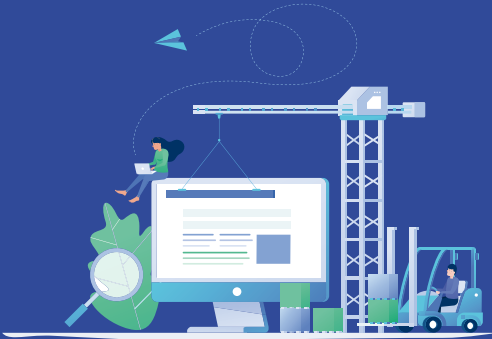
Designer and manufacturer of PMMA
applications for a number of national key
construction projects

At present, the company's products have been applied in many key projects at home and abroad, such as: Beijing Steel Work' s Design Institute, Angola Stadium, Hong Kong-Zhuhai-Macao Bridge, Hangzhou Bay Bridge, Hunan Aizhai Bridge, Xiangshan Port Bridge, National Olympic Sports Center, Canopies of Yangling High-tech Agricultural Zone in Shaanxi Province, roof of Harbin Gymnasium, roof of Beijing Ecological Park Agricultural Park, Daqing Oilfield, Beijing Metro Line 10, Shanghai Outer Ring Road, Beijing-Shijiazhuang High-speed Railway Project, etc.

Outstanding system
integration capabilities

杰出的系统集成能力

目前公司产品已在国内外众多重点项目上得到应用，如：北京首钢设计院、安哥拉体育馆、港珠澳大桥、杭州湾跨海大桥、湖南矮寨大桥、象山港大桥、国家奥林匹克体育中心、陕西省杨凌高新技术农业区顶棚、哈尔滨体育馆顶棚、北京生态园农业园顶棚、大庆油田、北京地铁 10 号线、上海外环线、京石高铁工程等。



Market-oriented, customer-focused, quality-driven growth, innovation-driven development

以市场为导向、以客户为中心、以质量助成长、以创新求发展



360° 支持计划

华帅特设立了完备的客户支持计划，从客户咨询开始，我们从方案讨论，到产品、系统设计，原料监督，生产质量控制，运输、安装，有强有力的专家团队为您 360 度全方位把控，这是我们对“以客户为中心”这一理念的践行。

360 degree support plan

HUASHUAITE has set up a complete customer support program. Starting from customer consultation, we will discuss the product, system design, raw material supervision, production quality control, transportation and installation. We have a 360-degree team of experts. Control, this is our practice of the "customer-centric" concept.



不忘初心，再创辉煌！

Stay true to our original aspiration as we create new prosperity!

品质卓越

Excellence
Quality



华帅特亚克力板材
采用全新三菱原料
Adopt Mitsubishi Raw Materials



● 华帅特® 亚克力之物理特性 The physical properties of acrylic sheet

物性 Property	ASTM	Unit	Value
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● 光学 Optical

透光率 Light Transmittance	D1003-61	%	93
屈折率 Refractive Index	D542-50	-	1.49

● 热 Thermal

热形式温度 Hotforming Temp	-	°C	140-180
热变形温度 Heat Distortion Temp	-	°C	87
线膨胀系数 Coefficient Of Liner	D696-44	Cm/cm °C	6×10 ⁻⁵
比热 Specific Heat	-	Cal/gr °C	0.35

● 机械 Mechanical

比重 Specific Gravity		D792-60T		1.2
抗拉强度 Tensile Strength	Rupture	D638-61T	Kg/cm ²	760
	Modulus of Elasticity		Kg/cm ²	3×10 ⁴
	Elongation at Rupture		%	4.5
弯曲强度 Flexural Strength	Rupture	D790-63	Kg/cm ²	1260
	Modulus of Elasticity		Kg/cm ²	3×10 ⁴
压缩强度 Compressive Strength	Yield	D695-63T	Kg/cm ²	1260
	Modulus of Elasticity		Kg/cm ²	3×10 ⁴
剪断强度 Shear Strength		D732-46	Kg/cm ²	630
冲击强度 Impact Strength		D256-56	1b-ft/inch	0.48
洛氏硬度 Rockwell Hardness		D785-62	Kg/cm ²	M-95

● 电气 Electric

表面电阻 Surface Resistvity	-	Ohm	>10 ¹⁶
体积电阻 Volume Resistivity	D257-61	Ohm cm	>15 ¹⁵
绝缘耐力 Dielectric Strength	D149-64	Kv/mm	20

● 其它 Miscellaneous

燃烧速度 Flammability	D635-63	Mm/min	33
吸水率 Water A bsorption(24Hrs)	D570-63	%	0.3
臭 Odor	-		None
味 Taste	-		None

● 值得你信赖的亚克力材料

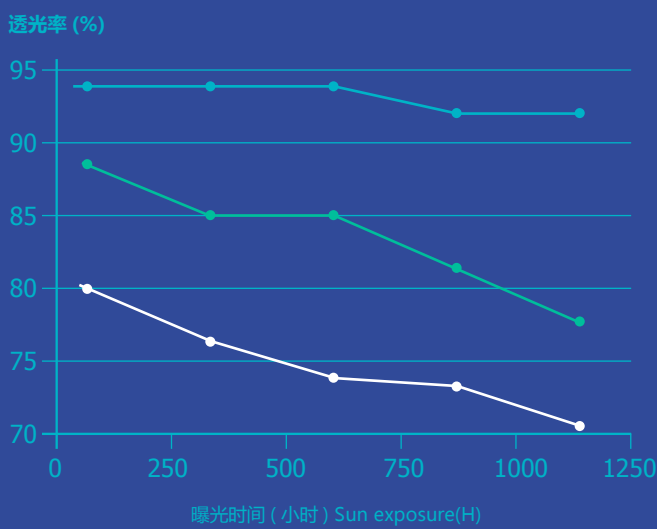
由于华帅特® 亚克力具有良好的耐候性，可以更加持久耐用，成为户外工程的理想优选。华帅特® 浇铸亚克力在生产时同步添加了 UV 抗紫外线材料，使其均匀分布于产品内部，而不仅仅只是表面涂层。浇铸板不易出现老化黄变，能持续使用数年乃至数十年，仍可以保持绝佳的透亮度和观感。其表面可以添加强化剂，以增强耐磨性能，可以长久保持光亮如新的整洁度，这使其在工业和机械领域得到了广泛的应用。美观、靓丽和色彩丰富的华帅特® 亚克力板，如今更被广泛应用于室内设计、通讯科技以及创意设计作品，为设计者带来源源不断的创作灵感。

● PMMA Materials Worthy of Your Trust

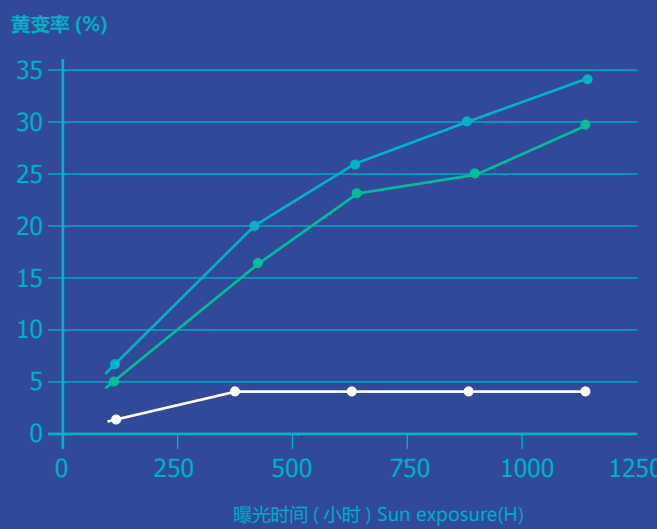
Due to its good weather resistance, HUASHUAITE® PMMA is more durable and ideal for outdoor engineering. The HUASHUAITE® cast PMMA is added with UV-resistant material during production, which is distributed evenly inside the product, rather than merely a surface coating. The cast sheets are not prone to aging or yellowing and can last for years or even decades, maintaining excellent brightness and appearance. A reinforcing agent can be added to the surface to enhance the abrasion resistance, and the brightness can be maintained for a long time, which makes it widely used in industrial and mechanical fields. The beautiful, brilliant and colorful HUASHUAITE® PMMA sheets are now widely used in interior design, communication technology and creative design, bringing designers a continuous source of inspiration.

● 新料板、回料板、聚碳酸酯板、耐候实验比较 (QUV 1000 小时) Comparison on weather resistance among virgin acrylic/recycled acrylic and PC

透光度 Light Transmission



黄变度 Yellowness Index



以上新料板 - 回料板之比较数据由长期供应商三菱协助提供，在此致谢！
We hereby extend our thanks to our long-term supplier--Mitsubishi who have offered the above comparison of statements between huashuaite acrylic and recycled acrylic.



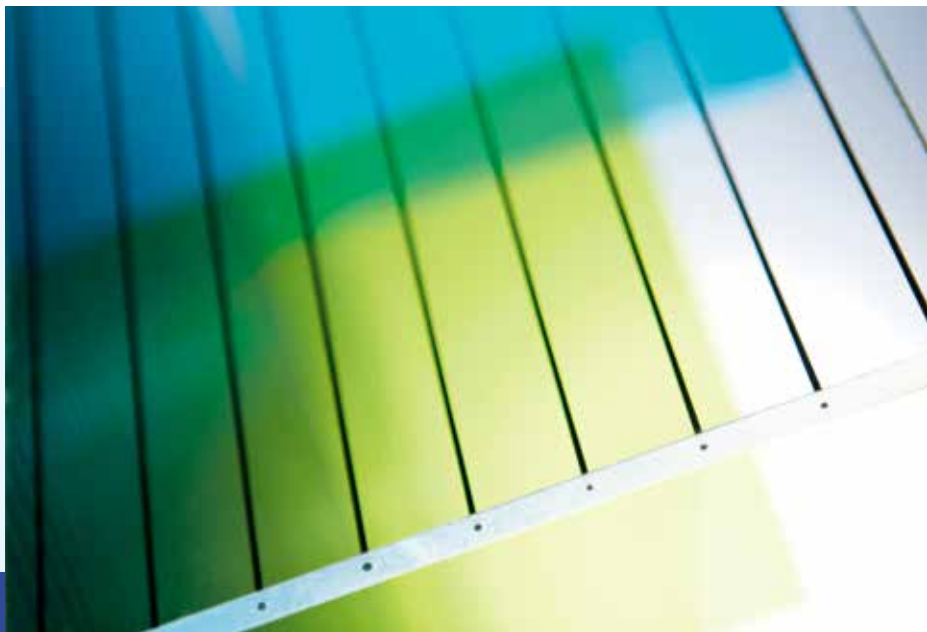
华帅特® 亚克力
应用于隔音材料

高速公路隔音 / 高铁轻轨隔音 / 高架道路隔音

华帅特亚克力隔音板，是质量优良、安全可靠的隔音材料。15 毫米厚度的板材的加权降噪感应 DLR 为 30 分贝，20 毫米厚度的板材则可以达到 33 分贝。除了其优良的声音反射性能之外，华帅特隔音板还可以用多种方式切割加工，简便易用。它的重量只是玻璃的一半，而抗冲击强度却比玻璃强 11 倍。正因为这个特性，华帅特亚克力隔音板还能够满足日常风压较大地域，对于板材风荷载能力的要求。更为出色的是，内部添加了强化筋特殊华帅特加筋板，提升了隔音屏障的抗冲击能力，在撞击后危险即将发生时，能防止板材破碎后跌落，有效保护行人，是城市地面、高架隔音的不二选择。除了透明以及开创性的第二代蔚蓝色防隧道效应隔音板，华帅特隔音板材都可以提供各种功能表面用于特定的客户需求，比如个性图案、或者规则图案用于保护鸟类，以及第三代的图案定制化发光隔音板、多媒体隔音板。



“Reliable and Durable
Sound Insulation Material”



Applied in Sound Insulation Materials

HUASHUAITE special PMMA sound insulation sheets are soundproof materials with good quality, safety and reliability. A 15 mm thickness sheet has a weighted noise reduction DLR of 30 decibels and 20 mm thickness sheets, 33 decibels. In addition to its excellent sound reflecting performance, HUASHUAITE special sound insulation sheets can also be cut and processed in many ways, which is easy to use. It weighs only half the weight of the glass and is 11 times stronger than the glass. Because of these characteristics, the HUASHUAITE PMMA sheets can also meet the requirements of resistance in applications where the wind pressure is high. The outstanding performance of these materials are the installation of special reinforced ribs in the sheets to enhance the impact resistance of these noise barriers Therefore, after an impact that can cause shatters, debris can be prevented from falling, which effectively protects the passers-by. This characteristic makes HUASHUAITE the first choice of sound barriers in the urban ground and elevated passages. Except the transparent and groundbreaking second-generation azure anti-tunnel effect barriers, HUASHUAITE 's sound-insulating sheets area available in a variety of functional surfaces for customers’ specific needs, such as personalized patterns or regular patterns for bird protection, and the third generation patterns customized lighting sound barriers and multimedia sound barriers, etc.



华帅特® 亚克力
应用于制品行业

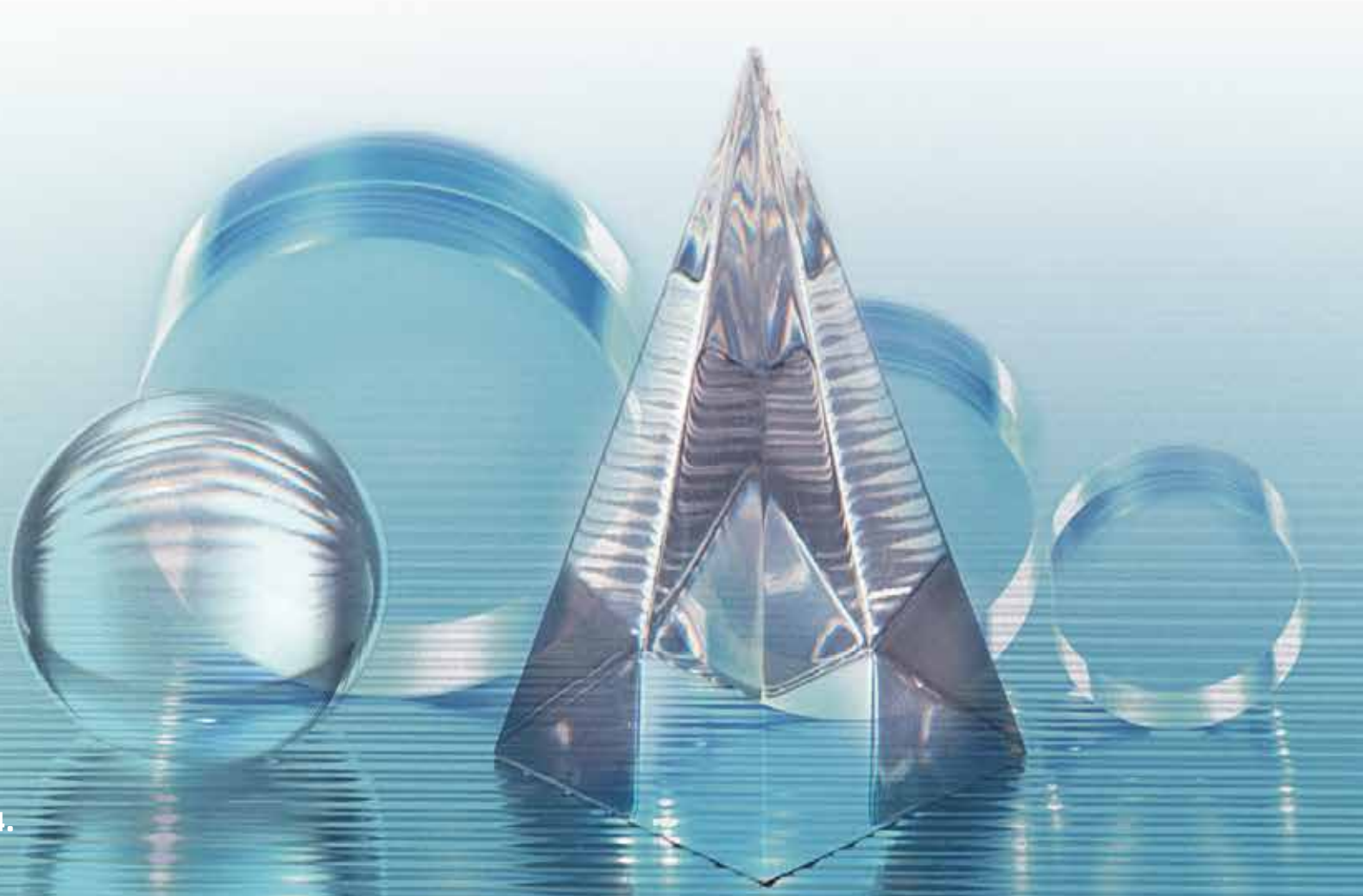
“ Ideal PMMA Material for
Excellent Plasticity ”



工艺品 / 商品展示 / 家具 / 卫浴橱柜 / 办公用品 ...

Applied in the Manufacturing Industry

PMMA is about half the weight of glass and 11 times the impact strength of glass. It is therefore an ideal material for high pressure resistance. HUASHUAITE PMMA has many different functions and surfaces, which are suitable to be re-processed into various types of products. The advantages of HUASHUAITE PMMA are the machining and manufacturing properties of the material. It is very strong during processing and installation. It can be laid, drilled, sawed and permanently thermoformed. It can be combined with various components to form a large structure, with perfect treatment at joints and parqueting. Excellent performance makes it outstanding in the Estée Lauder’ s display showcases, and the material is widely used in crafts, office supplies, display stands, equipment, fish tanks, door access control, furniture and other fields. In addition, it is easy for maintenance and is extremely suitable for long-term use. Its extremely strong plasticity makes it outstanding in various post-processed applications!





华帅特® 亚克力
应用于广告行业

标识标牌 / 门头 / LED 发光字 / 展览展示 / 灯箱



“ To Support Your Whimsical Ideas ”



华帅特® 高品质亚克力广告板材，是标牌及发光标识的绝佳选择，其用途广泛，在保持亚克力轻质、耐候、等特性前提下，实现各种自然光、灯源条件下醒目的标牌设计色彩丰富且具有坚固和耐候的特性，是广告、灯箱、发光标志牌的理想之选，在中石化、三星电子、中国农业银行等广告装饰中得到了客户的一致青睐。其加工方便，且易于成型的特点，使制作的标识具有非凡的效果。与 LED 结合使用时，可以节省更多能源，持久抗老化，令你的广告标识熠熠生辉。

Applied in the Advertising Industry

HUASHUAITE® high-quality PMMA advertising sheets are an excellent choice for signs and illuminated billboards. It has a wide range of applications. With PMMA's lightweight, weather-resistant and other characteristics, this material is an eye catcher under various natural light and artificial light sources. Rich in color with sturdiness and weather-resistance, it is an ideal choice for advertising, light boxes, and luminous signs. It has been favored by customers in advertising decorations such as Sinopec, Samsung Electronics, and Agricultural Bank of China. The processing is convenient and the material is easy to shape, which gives the logos produced extraordinary effects. When combined with LEDs, more energy can be saved, with anti-aging properties, making the advertising logos shine brilliantly.



华帅特® 亚克力 应用于采光、装饰行业

华帅特亚克力透明度高，外观美观，色彩鲜艳，可满足你对建筑采光和室内装饰不同品味的个性追求。浇铸亚克力板的抗 UV 添加剂可以均匀分布至整个板材，可以更好的适应气候变化和日常风吹日晒的考验，即使多年之后，都仍能保持恒久的透明度，不易发生黄变或龟裂。由于华帅特亚克力拥有出色的耐老化物理性能，因此不像其他塑料那样需要频繁更换，更加经济，并且更加节能环保。其易于加工的特性，自然、温润的触感，尤其适合应用于办公及家庭装修和装饰，在京东方的项目中，华帅特亚克力的表现尤其出色。



“ Colorful, Stable, Reliable
and Easy to Use ”

采光窗、罩 / 围挡隔断 / 室内装修 / 楼梯、泳池



Applied in the Lighting and Decoration

HUASHUAITE PMMA has high transparency, beautiful appearance and brilliant colors, which can satisfy users’ unique tastes of architectural lighting and interior decorations. The anti-UV additives can be evenly distributed to the whole PMMA sheets, which can better adapt to the climate change and weathering of wind and sunlight. Even after many years of use, it can maintain long-lasting transparency and is not prone to yellow or crack. Because of its excellent aging-resistance, HUASHUAITE PMMA does not require frequent replacements like other plastics, which makes it more economical and more environment friendly. Its easy-to-process characteristics, natural and warm touch are especially suitable for office and home decoration and decoration. In the BOE project, HUASHUAITE PMMA performance is particularly outstanding.



华帅特® 亚克力
应用于照明、光学行业

灯罩 / 平板灯面板 / 导光板 / 显示屏面板 / 光学仪器



华帅特亚克力的光扩散板，广泛应用于各类照明灯具，LED 平板灯面板、灯管和现代室内灯光设计，其优异的性能，使光线更明亮、更柔和，得到了欧普照明等国内行业领导者的肯定。而对边传导的导光板，则可以利用侧光点亮整块面板，增加亮度的同时，节省能源，广泛应用于发光板及超薄灯箱。具有防眩光作用的亚克力板，则可以将环境光对显示性能的影响降到极低，满足现代电子显示屏的要求，使画面更清晰夺目。

Applied in Lighting and Optical Industry

HUASHUAITE's light diffusing sheets are widely used in all kinds of lighting fixtures, LED light panels, light tubes and modern interior lighting designing. The excellent performance of these sheets makes the light brighter and softer, which has been recognized by domestic leading industries such as Op Lighting. The light guiding plate of the opposite sides can use the side light to illuminate the whole sheet so as to increase the brightness and save energy. This solution is widely used in the illuminating boards and the ultra-thin light boxes. The PMMA sheets with anti-glare effect can maximize the impact of ambient light to displaying performance, meeting the requirements of modern electronic display screens, and making the pictures more clear and eye-catching.





华帅特® 亚克力 应用于工业、安防行业

华帅特亚克力耐冲击，而且耐溶剂和化学品，这为工业领域的应用，提供了丰富的选择。它非常容易利用机械加工和热成型工艺进行再加工和制造，适用于各类观察窗、机械保护罩，汽车电子，船舶、飞机舷窗等。经过特殊处理的华帅特亚克力，可应用于安防、保护要求强度高的大型建筑、公用设施等领域，在马尔代夫 RITZ CARLTON 项目中的表现尤其突出。

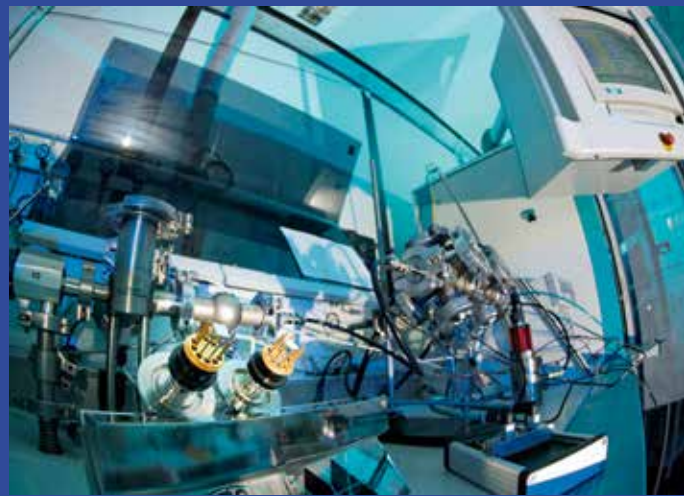


“ Add Additional Value to Your Product ”

Applied in Industries and Security

HUASHUAITE is PMMA and resistant to impact, solvents and chemicals, which provide a wide range of options for industrial applications. It is very easy to be reprocessed and manufactured using machining and thermoforming processes, and is suitable for all kinds of observation windows, mechanical protective covers, automotive electronics, ships, aircraft portholes, etc. The specially treated HUASHUAITE PMMA can be used in large applications such as large buildings and public facilities where security and protective features are required, and its performance in the RITZ CARLTON project in Maldives is particularly outstanding.

机械设备 / 保护罩 / 模型 / 安防装备 / 舷窗 / 观察窗



华帅特® 亚克力 丰富的可选表面涂层
HUASHUAITE® PMMA's Abundant Options for Surface Coating



● 防静电涂层

在板表面通过镀膜技术，形成一层防静电的硬膜，使其具有优异的消除静电的功能，有效防止灰尘的积聚，避免静电可能导致的对设备或者元器件的危害，以满足高科技时代产业界的特殊需要。

Antistatic Coating

Through the coating technology on the surface of the sheets, an anti-static hard film is formed, which effectively eliminates static electricity, preventing the accumulation of dust, and avoiding damage to equipment or components caused by static electricity, so as to meet the special needs of the high-tech industry.

● 硬化涂层

使用有机基质在板材表层镀膜，镀膜后的亚克力板材，表面铅笔硬度提高，且不易脆裂，而且表面不易刮花，适用于严苛的环境。

Hardened coating

The organic substrate is coated on the surface of the sheets, and the PMMA sheet after coating has improved surface hardness and is not prone to crack, and the surface is prone to be scratched. As a result, it is suitable for harsh environments.

● 红外光控涂层

通过在板材表面镀膜，实现对透过板材的光线中的红外线进行控制，达到控制室内温度的效果，特别适合应用于室外气温较高的地区，可有效改善环境和节约温控能耗。

Infrared Light Controlling Coating

Through a layer of coating on the surface of the sheets, the infrared light penetrating the sheets is under control. The temperature indoor is thus controlled, making the sheets particularly suitable for applications with high outdoor temperatures, which can effectively improve the environment and save energy consumption for temperature control.

● 防眩光涂层

表面经过了特殊的处理，防眩光以外还使反光度下降，减少光影，增强产品表面防腐、防划伤性能，解决电子视屏、影像屏幕的反光、眩光问题，提高图象画面质量。

Anti-glare Coating

The surface has been specially treated to reduce the degree of glare. Besides, the reflective level of the sheets is also reduced and shadows are reduced as well. The anti-corrosion and anti-scratch performance of the product surface are both enhanced, solving the problem of reflection and glare of electronic screens and image screens, and improving the quality of the images.

● 镜面涂层

通过镀膜工艺，在板材表面形成镜面反光层，在保持基本物理性能的同时，起到提高板材耐磨性、导电性、反光性、抗腐蚀性（硫酸铜等）及增进美观等作用。

Mirror Coating

Through the coating process, a specular reflective layer is formed on the surface of the sheets, which, while maintaining the basic physical properties, improves the wear resistance, electrical conductivity, light reflectivity, corrosion resistance (copper sulfate, etc.) of the sheets and enhances their appearance.



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