



ZTREM

中拓复合材料

ZHONGTUO NEW DESIGN COMPOSITE MATERIAL

合作 | 共赢 | 创新 | 发展
WIN-WIN COOPERATION AND INNOVATION



沧州中拓冷弯成型设备有限公司

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公司简介

COMPANY PROFILE



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沧州中拓来自中国河北省，是一家致力于设计和制造不同类型冷弯成型机的厂家。我们是一家历史悠久的工厂，从事冷弯成型机的设计和制造始于2006年。我们可以生产的机器包括：屋面瓦机，CZ型钢机，轻钢龙骨机，金属压花机，门类成型机，吊顶系统成型机，高频焊管机，纵剪线，横剪线，货架系统成型机，楼承板机，彩石瓦生产线等。在此基础上，中拓也结合国际趋势与市场需求，研发了一种多功能高速复合金属板材机，并取得了多项专利。此项研发以金属材料为基板，可以复合多达8层材料，通常由抗老化透明层+铝箔+高分子膜+基板+高分子膜+发泡层+铝箔+防腐层构成。相比普通的金属屋面瓦，此款新型材料具有隔音降噪，抗冷凝水防漏雨，耐酸耐碱防腐性等优点。经过五道高温热贴合工序，两道高强度抗老化胶水贴和工序，此项工艺相比于普通的EPS/PU夹芯板加工工序，更省时省工，以更低的成本价造出使用寿命更长的板材。而在此新型材料的基础上，我们不仅有制造新型材料的设备，还优化了现有的屋面瓦等设备，既可以加工普通的PPGI金属材料，还可以加工新型复合材料，成品优质易于使用，不会产生弯曲上翘的现象。公司已通过ISO9001质量管理体系认证，欧洲CE安全认证，北美CAS电气认证，并把“时间就是金钱，质量就是生命”的理念灌输到每一位员工的心中。在提高生产效率，缩短交货时间的同时严格把控设备质量。所有设备均坚持在发货前进行试机，不将有问题的设备交付给客户。我们有丰富的出口经验，了解发展中国家和发达国家客户的不同需求，多年来为客户提供了许多令人满意的设备方案。如今，我们的设备已经出口到全球150多个国家，与客户建立了长期稳定的合作关系，获得了客户的一致好评。

CANGZHOU ZHONGTUO comes from Hebei Province, China. It is a manufacturer dedicated to the design and manufacture of different types of cold roll forming machines. We are a factory with a long history, engaged in the design and manufacture of roll forming machines since 2006. The machines we can produce include: roof tile making machine, CZ purlin making machine, light steel keel making machine, metal embossing machine, door system forming machine, ceiling system forming machine, high frequency pipe welding machine, slitting line, cut to length line, shelf system forming machine, floor decking forming machine, color stone tile production line, etc. On this basis, Zhongtuo has also developed high speed multi-functional metal composite panel forming machine based on international trends and market demands, and has obtained a number of patents. This research and development uses metal materials as the substrate, which can be combined with up to 8 layers of materials, usually composed of anti-aging transparent layer + aluminum foil + polymer film + substrate + polymer film + foam layer + aluminum foil + anti-corrosion layer. Compared with ordinary metal roof tiles, this new type of material has the advantages of sound insulation and noise reduction, anti-condensation and rain-leakage, acid and alkali resistance and corrosion resistance. After five high-temperature thermal bonding processes, two high-strength anti-aging glue pastes and processes, this process is more time-saving and labor-saving compared to the ordinary EPS/PU sandwich panel processing process, and is manufactured at a lower cost. Produce longer-life plates. And on the basis of this new material, we not only have equipment for manufacturing new materials, but also optimized the existing roofing tiles and other equipment, which can process ordinary PPGI metal materials as well as new composite materials. The finished products with high quality and easy to use. Will not produce bending and upturning phenomenon. Our company has passed ISO9001 quality management system certification, European CE safety certification, North American CAS electrical certification, and instilled the concept of "time is money, quality is life" into the hearts of every employee. In improving production efficiency and shortening delivery time same time the quality of the equipment is also controlled. All equipments are tested before shipment, and problematic equipment will not delivered to customers. We have rich export experience and know the different needs of customers in developing and developed countries. For many years we have provided many customers with satisfactory equipment solutions. Nowadays, our equipments had been exported to more than 150 countries around the world, and we have established long-term and stable cooperative relations with customers and won unanimous praises from customers.

企业发展愿景：成为全球有影响力的冷弯成型设备及配套产品一站式供应商

Development vision: become a global one-stop supplier of cold roll forming machines and accessories.

企业发展理念：时间就是金钱 质量就是生命

Development concept: time is money, quality is life.

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为什么选择和中拓合作?

Why choose to cooperate with ZHONGTUO ?

1. 独特的用于金属卷材加工的解决方案

中拓冷弯成型设备是中国领先的卷材处理设备品牌之一，成立于2006年。我们的使命是为客户提供优质的金属辊轧解决方案和售后服务。我们的机器提供多种卷材送料设备，包括开卷机，矫直机，送料机以及自动辊压成型机。例如：彩钢屋面瓦机，檩条成型机，热膜吸机等。可以更高效，更准确地执行金属加工，提高可靠性，减少浪费，提高生产效率。

Unique coil processing solutions for metal working

Zhongtuo cold roll forming machinery is one of the leading Chinese coil handling equipment brand founded in 2006. Our mission is to provide our customers with the very best quality metal rolling automation solutions and after-sales service. Our machine offers a wide range of coil feeding equipment, including Decoiler, Steel Straightener, Coil Feeder as well as numerous rolling automation machines like color steel roofing sheet machines, purlin machines, hot filming machine and others. Metal coil processing can be carried out more efficiently and more accurately for better reliability, less waste, and improved productivity.



2. 设备的研究与开发

中拓冷弯成型设备致力于根据客户的需要提供定制的金属加工解决方案。中拓拥有经验丰富的技术团队和孜孜不倦的研发团队，能够提供满足更高国际标准的卷材处理解决方案。

定制卷材加工解决方案 专业技术团队 持续研究和不断的新品开发

Equipment Research and Development

Zhongtuo Rolling Machine Equipment commits to provide customized coil processing solution according to each customer's specific metalworking process. With experienced technical team and continuous researching investment, Zhongtuo is capable to offer coil handling solutions that meet higher international standards.

Customized Coil Processing Solution Professional Technical Team Continuous Researching



3.生产质量控制

得益于精密的机床和熟练的工人，中拓冷弯机械已成为可靠的卷材处理解决方案制造商。从备件准备到设备组装，我们的机器均可为您提供实时制造更新。从原材料控制，备件检查到机器组装，中拓冷弯机械执行严格的质量控制流程。我们致力于提供具有工作稳定性，操作安全性并实现精确的冷弯成型加工设备。确保不让任何一个不合格设备离开工厂。

精密机床 技术工人 制造过程

Manufacturing Quality Control

Thanks to the precision machine tools and skilled workers, Zhongtuo cold rolling machinery has become a reliable coil handling solution manufacturer. From spare parts preparation to equipment assembly, our machine can offer real-time manufacturing update for our valued customers. From raw material control, spare parts inspection and machine assembly, Zhongtuo machine factory implements a strict quality control process. We commit to offer coil handling equipment with working stability, operation safety, and achieve precision straightening and feeding performance. All work are just for making sure all the products of machines are qualified.

Precision Machine Tool Skilled Workers Manufacturing Process



我们的团队和合作案例

our team and cooperatoion cases



英国 ENGLAND



埃及 EGYPT



肯尼亚 KENYA



秘鲁 PERU



摩洛哥 MOROCCO



墨西哥 MEXICO



爱尔兰 IRELAND



印度 INDIA



巴基斯坦 PAKISTAN



摩洛哥 MOROCCO



阿尔及利亚 ALGERIA



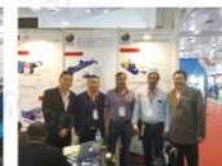
南非 SOUTHAFRICA



阿尔及利亚 ALGERIA



印度 INDIA



印度 INDIA



波兰 POLAND



印度 INDIA



阿联酋 UAE



玻利维亚 BOLIVIA



泰国 THAILAND



团结合作



专利证书 Patent certificate



检测报告 Test Report



检验报告

报告编号: 2021-CJ10865

样品名称: 金属复合板

委托单位: 德州中拓新材料股份有限公司

检验类别: 委托检验

国家化学建筑材料测试中心

国家化学建筑材料测试中心 (材料测试部)

检验报告

报告编号: 2021-CJ10863 第2页 共2页

委托单位	德州中拓新材料股份有限公司	检验类别	委托检验
生产单位	德州中拓新材料股份有限公司	生产日期	2021.07.18
产品名称	金属复合板	规格型号	中板
样品来源	委托送检	样品数量	3000.00kg
检验项目	力学性能	产品标准	CJ/T200-2005
检验日期	2021.07.18	检验地点	材料测试部
检验人员	李永强	审核人员	李永强

检验结论: 经检验, 该样品符合 CJ/T200-2005 标准要求。

检验日期: 2021.07.18

检验地点: 材料测试部

检验人员: 李永强

审核人员: 李永强

国家化学建筑材料测试中心 (材料测试部)

检验报告

报告编号: 2021-CJ10862 第2页 共2页

委托单位	德州中拓新材料股份有限公司	检验类别	委托检验
生产单位	德州中拓新材料股份有限公司	生产日期	2021.07.18
产品名称	金属复合板	规格型号	中板
样品来源	委托送检	样品数量	3000.00kg
检验项目	力学性能	产品标准	CJ/T200-2005
检验日期	2021.07.18	检验地点	材料测试部
检验人员	李永强	审核人员	李永强

检验结论: 经检验, 该样品符合 CJ/T200-2005 标准要求。

检验日期: 2021.07.18

检验地点: 材料测试部

检验人员: 李永强

审核人员: 李永强



检验报告

报告编号: 2021-CJ10864

样品名称: 金属复合板

委托单位: 德州中拓新材料股份有限公司

检验类别: 委托检验

国家化学建筑材料测试中心

国家化学建筑材料测试中心 (材料测试部)

检验报告

报告编号: 2021-CJ10864 第2页 共2页

委托单位	德州中拓新材料股份有限公司	检验类别	委托检验
生产单位	德州中拓新材料股份有限公司	生产日期	2021.07.18
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审核人员: 李永强

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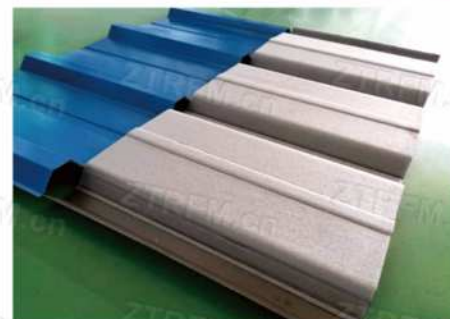
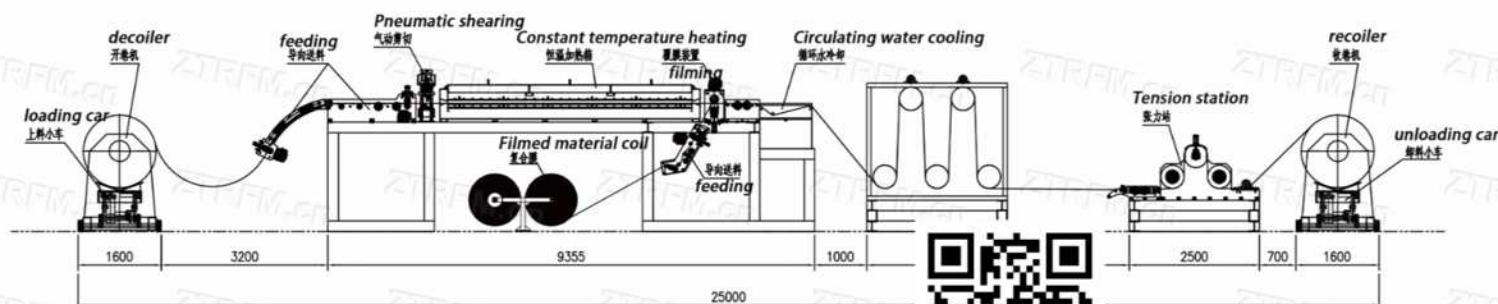
检验人员: 李永强

审核人员: 李永强



彩钢瓦覆膜设备 color metal steel PPGI laminating machine

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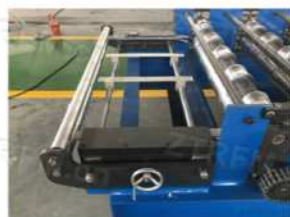
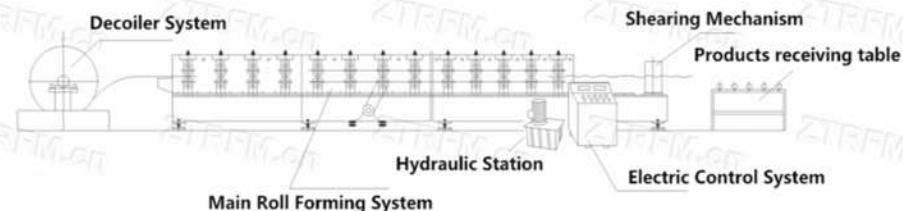
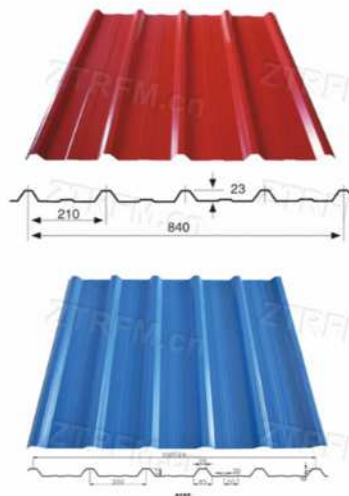
梯形彩钢瓦设备 Trapezoidal (IBR) roofing sheet machine

Main parameter:

Thickness: 0.3-0.8mm

Material width: 914-1450mm

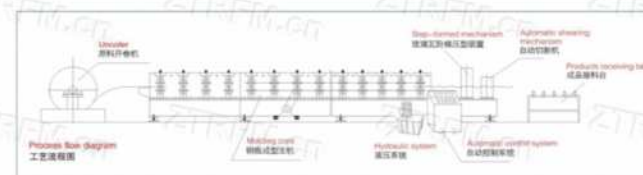
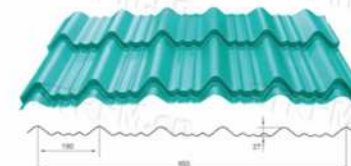
Effective width: 760-1260mm



仿古琉璃瓦设备 Glazed tile roofing sheet machine

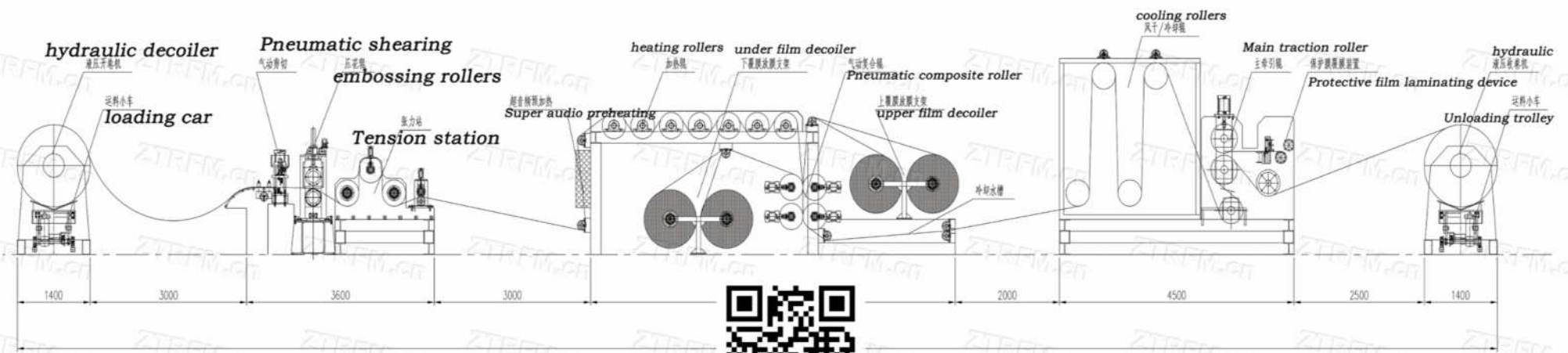
This series tile forming machine is a new generational type with high accurate and high-efficient, including decoiler system, sheet guiding system, roll forming system, pressing system, cutting system, auto-stocker system, hydraulic system, controlling system etc.

Material thickness: 0.3-0.8mm Parameters: maximum speed: 0-5m per minute Working flow: Decoiling -guiding and feeding -roll forming -pressing -cut to length-run out table



多功能流水线型复合设备 New design composite material laminating producing line

多功能流水线型复合设备 New design composite material laminating producing line



中拓热覆膜产品 Zhongtuo Thermal Laminating Products



种类和系列：根据每种产品的功能不同，中拓热覆膜产品有如下几个系列可供选择：

抗老化系列、迷你复合板系列、耐酸碱系列、防冷凝水系列、防生材料系列、特殊功能系列

同时我们也提供定制服务、专门为一些农场、化工厂、仓储车间等进行特殊定制。除了材料本身我们还提供合成材料的机器定制，辊压成型新材料的屋面瓦成型机定制服务。

Types and Series

According to different functions, ZHONGTUO new material has the following series.

Anti-aging series, Mini-sandwich panel series, Acid and alkali resistance series, Anti-condensation series, Bionic series, Special Function customization

For example for, for chemical factory, for warehouse and or others

Expect the material, we also supply the machine to make the film and the rolling machines to make sheet by the new material.



颜色可选/版型可选

更多种类的膜和材质可选择

More color to choose

More pattern to choose

More type material of basic and film to choose



拒绝老化 ZT tile can last more than 10 years

中拓热覆膜产品 Zhongtuo Thermal Laminating Products



迷你复合板系列

1. 低重量下的高承载能力。
2. 优良耐用的保温隔热。
3. 绝对的水汽阻隔。
4. 气密性好，无热桥，节能效果显著。
5. 表面处理的饰面可抵抗天气和恶劣环境。
6. 无需起重设备即可快速架设，在恶劣的天气条件下更容易安装。
7. 损坏时易于维修和更换
8. 使用寿命长，维护成本极低。
9. 隔音效果好。
10. 合理的火灾反应和抵抗力

Mini-sandwich panel series

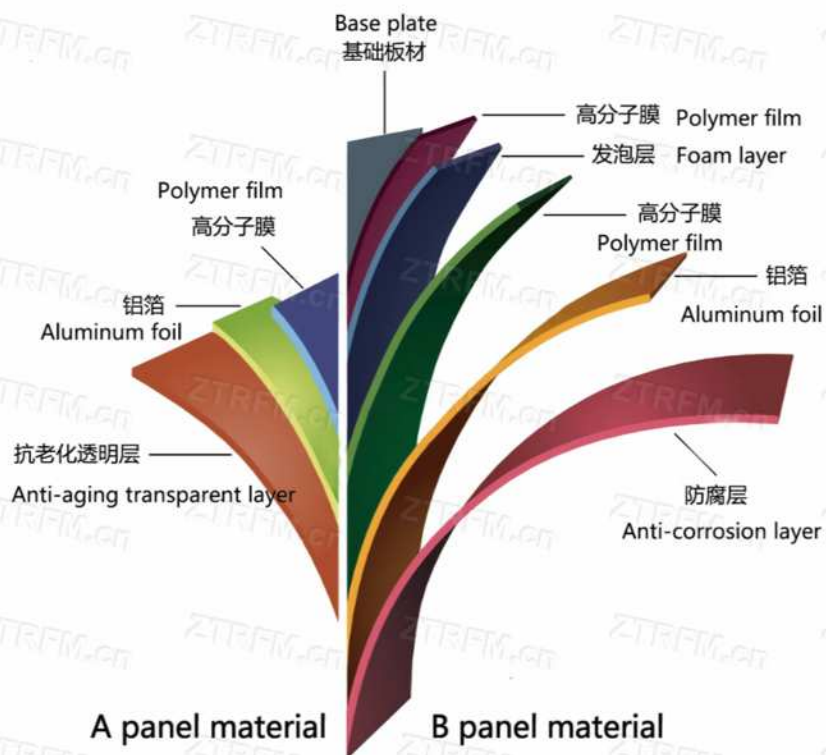
1. High load bearing capacity at low weight
2. Excellent and durable thermal insulation
3. Absolute water and vapour barrier
4. Excellent air tightness and free of thermal bridges which results in considerable energy savings.
5. Surface finished facings providing resistance to weather and aggressive environments
6. Capacity for rapid erection without lifting equipments; easier installation in hostile weather conditions
7. Easy repair and replacement in case of damage
8. Long life and very low maintenance cost
9. Good sound insulation
10. Reasonable fire reaction and resistance



工艺结构 Process structure

多达8层材料复合而成，经过五道高温热贴合工序，两道高强度抗老化胶水贴合工序加工而成。抗老化透明层+铝箔+高分子膜<<基板>>+高分子膜+发泡层+高分子膜+铝箔+防腐层

It is composed of up to 8 layers of materials, and is processed through five high-temperature heat bonding processes and two high-strength anti-aging glue bonding processes. Anti-aging transparent layer + aluminum foil + polymer film <<substrate>> + polymer film + foam layer + polymer film + aluminum foil + anti-corrosion layer



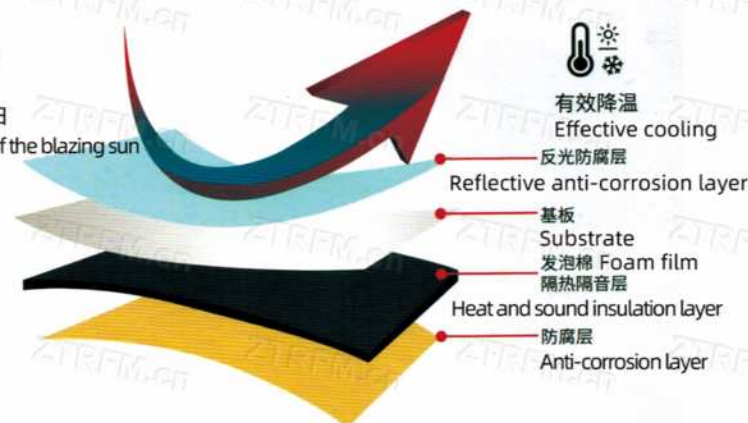
双层隔热更高效 Double-layer insulation is more efficient



无惧烈日
No fear of the blazing sun



有效降温
Effective cooling



太阳灯照射测试

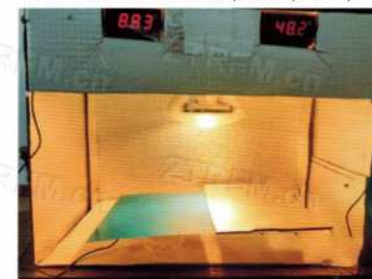
PROCESS STRUCTURE

3CM彩钢泡沫板(49.7°)
3CM color steel foam panel (49.7°)
3MM铝烯板(49.1°)
3MM aluminum ene plate (49.1°)

普通彩钢(88.3°)
Normal color steel (88.3°)
3MM铝烯板(48.2°)
3MM aluminum ene plate (49.1°)



测试结果可见铝烯板隔热效果更胜一筹
The test results show that the heat insulation effect of aluminene board is better
5: Alene plate temperature probe is closer the sun lamp)



测试结果可见铝烯板的隔热效果相当明显比普通彩钢温度低了40°!
The test results show that the heat insulation effect of the aluminene board is quite obvious, and the temperature is 40° lower than that of ordinary color steel!

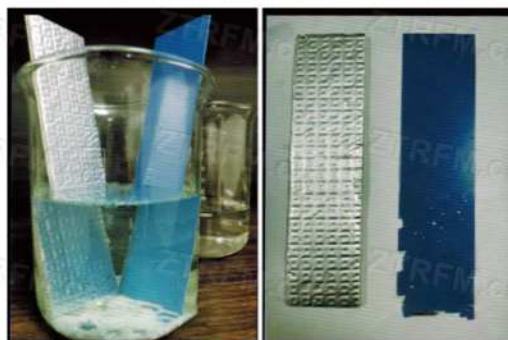


防腐性能优越 Superior anti-corrosion performance



基板双面都由高分子膜通过200°高温压制贴合,完全融合在基板表面。即使在强酸碱的环境中基板表层材料也能很好的保护基板。

Both sides of the substrate are laminated by a polymer film through 200° high temperature pressing, and are completely fused on the surface of the substrate. Even in a strong acid and alkali environment, the substrate surface material can protect the substrate very well.



两块样板同时放置在同一个烧杯中浸泡了36小时。铝烯板双面均保持完整,仅边缘少部分受到腐蚀。彩钢板被浸泡部分已经完全被腐蚀溶解。

The two samples were placed in the same beaker and soaked for 36 hours at the same time. Alene Both sides of the board remain intact, and only a small part of the edge is corroded. The soaked part of the color steel plate has been completely corroded and dissolved.



铝烯板 Alene sheet 彩钢板 Color steel plate

防冷凝水 Anti-cooling condensation

发泡层不吸水、不透气有效杜绝吸水霉变现象,免遭虫、鼠、鸟带来的病毒细菌隐患。相比下,传统板材的隔热层容易被昆虫动物在里面筑巢,尤其对养殖业极其不利,会对养殖的牲畜带来传染病的隐患。隔热层还会被掏空,直接导致隔热效果的下降。后期维护更省心,即使外力所致的穿孔、漏水现象,容易找到穿孔漏水点,而多层结构屋面无法准确找到漏水点,维护成本高。

The foam layer does not absorb water and is airtight, effectively preventing water-absorption and mildew, and avoiding the hidden dangers of viruses and bacteria caused by insects, mice, and birds. In contrast, the thermal insulation layer of the traditional board is easy for insects to build nests in it, which is extremely unfavorable to the breeding industry, and brings hidden dangers of infectious diseases to the farmed livestock. The thermal insulation layer will also be hollowed out, which directly leads to the decline of the thermal insulation effect. Later maintenance is more worry-free. Even if the perforation or water leakage is caused by external force, it is easy to find the perforation leaking point, and the multi-layer structure roof panel cannot accurately find the leaking point, and the maintenance cost is high.



保温层被动物掏空、筑巢
Insulation layer is hollowed out and nested by animals



保温层被动物损坏、筑巢
Insulation layer is damaged by animals, nesting



保温层受潮霉变
Insulation layer is damp and mildew

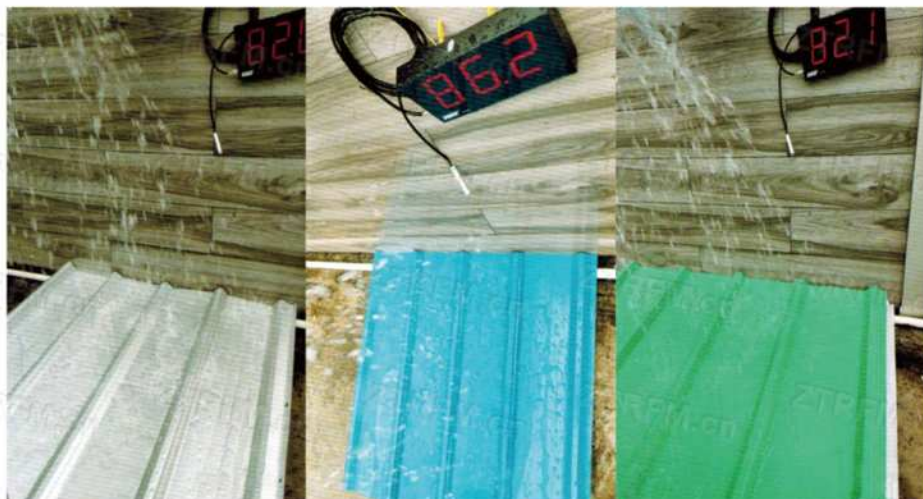
结构密闭,不易凝结水珠,表面光滑易清洗,无需担忧动物筑巢,霉变的风险和隐患。

The structure is airtight, not easy to condense water, and the surface is smooth and easy to clean. There is no need to worry about the risks of hidden dangers of animal nesting and mildew.



三倍静音效果 Triple mute effect

纳米隔热复合金属板/彩钢瓦/多功能纳米金属复合板在相同条件下的噪音对比测试
Nano heat insulation composite metal panel/color metal steel/multi-function nano metal composite panel noise reduction Comparison



纳米隔热复合金属板
Nano heat insulation
composite metal panel

彩钢瓦
color metal steel

多功能纳米金属复合板
multi-function nano metal
composite panel

测试结果说明:

纳米隔热复合金属板比普通彩钢瓦噪音低4.2分贝 (PS:每增加10个分贝需要10个同样音源叠加才能达到)
纳米隔热复合金属板隔音性能良好,板材中的发泡材料起到隔音减震作用,有效阻断了噪音的传导或振动产生的噪音。模拟降雨测试噪音显示,同等条件下噪音与5公分泡沫瓦相当,为彩钢瓦的1/3。

Test result description:

Nano thermal insulation composite metal panel has 4.2 decibels lower noise than ordinary color steel tiles (PS: every additional 10 decibels requires 10 identical sound sources to be superimposed to achieve)
The nano thermal insulation composite metal panel has good sound insulation performance, and the foam material in the panel plays a sound insulation and shock absorption function, effectively blocking the conduction of noise or the noise generated by vibration. The simulated rainfall test noise shows that under the same conditions, the noise reduction effect is equivalent to that of a 5-cm foam tile, noise is 1/3 that of a color steel tile.

工程案例 Engineering case



如何解决钢结构屋面凝结结露问题?

近年来,轻钢结构厂房因其工厂化生产、施工周期短、见效快、造价低、车间柱距小、跨度大、便于机器排列、外形美观等优点被广泛应用到企业新建或扩建中去。然而,厂房在建成投产时或者使用一段时间后,屋顶凝结结露问题才凸显出来。厂房保温效果恶化,出现吊顶大面积湿润和滴水现象。水珠在室内无规则的滴落,增加了厂房内的空气湿度,产品质量受到影响,导致生产效率降低甚至被迫中断生产,造成巨大的经济损失。在纺织行业、发电行业、电子行业、飞机机库、养殖场、体育馆、卷烟厂、冶金、造纸、酒窖、粮仓等对室内干燥有严格要求的生产加工车间这种危害尤为明显。因此分析凝结结露的成因,找出防止钢结构厂房凝结结露的方法对解决当前问题意义重大。

How to solve the problem of condensation on steel roofs?

In recent years, light steel structure workshops have been widely used in new construction or expansion of enterprises due to their factory production, short construction period, quick results, low cost, small workshop column spacing, large span, easy machine arrangement, and beautiful appearance. However, when the plant was built and put into production or after a period of use, the problem of condensation on the roof became prominent. The insulation effect of the plant deteriorated, and large areas of the suspended ceiling were wet and dripping. Irregular dripping of water droplets in the room increases the air humidity in the workshop and affects the quality of the products, resulting in reduced production efficiency and even forced interruption of production, resulting in huge economic losses. This hazard is particularly obvious in production and processing workshops that have strict requirements for indoor drying, such as textile industry, power generation industry, electronics industry, aircraft hangars, farms, stadiums, cigarette factories, metallurgy, papermaking, wine cellars, and granaries. Therefore, analyzing the causes of condensation and finding out methods to prevent condensation in steel structure workshops is of great significance to solving the current problems.



干仓库 Dry warehouse

飞机库 Hangar

养殖场 Farm

