伟诚防火科技集团有限公司
Weicheng Fire Protection Technology Group Co.,Ltd.

联系电话：
国内销售部：0316-5935111
国际销售部：+86-0316-5838995
网址：www.hbweicheng.com
阿里店铺：hbwcfh.1688.com
邮箱：hbweicheng@126.com

Contact Number:
Domestic Sales Department: 0316-5935111
International Sales Department: +86-0316-5838995
Website: www.hbweicheng.com
Alibaba Shop: hbwcfh.1688.com
Mailbox: hbweicheng@126.com

批准单位：应急管理部消防产品合格评定中心
查询网址：www.cccf.net.cn
检验单位：国家固定灭火系统和耐火构件质量监督检验中心
查询网址：www.cncf.com.cn

Approval Unit: China Certification Center for Fire Products of MEM
Query Website: www.cccf.net.cn
Inspection Unit: National Center for Quality Supervision and Test of Fixed Fire-fighting Systems and Fire-resisting Building Components
Query Website: www.cncf.com.cn

冀伟诚®

防火涂料系列
伟诚防火科技集团

伟诚防火科技集团有限公司
Weicheng Fire Protection Technology Group Co.,Ltd.

冀伟诚®

集团发展理念

GROUP DEVELOPMENT PHILOSOPHY

追求卓越	Pursuit of excellence
质量图强	Quality picture is strong
匠心筑梦	Ingenuity to build dreams
稳健成长	Steady growth

MESSAGE FROM THE CHAIRMAN

董事长致辞

伟诚集团在发展的道路上，
得到各级领导和各界人士的大力支持和帮助，
伟诚将不忘初心，
继续用优质的产品和良好的服务满足客户需求，
不断攀登行业新高峰，
努力为大众创造安居生活！

Weicheng Group is on the road of development,
With strong support and help from leaders at all levels and people from all walks of life,
Weicheng will never forget his original intention,
Continue to meet customer needs with high-quality products and good services,
Constantly climbing new peaks in the industry,
Work hard to create a peaceful life for the public!

百年伟业
誠信為本

王伟建
二零二零年四月

GROUP INTRODUCTION

集团简介

伟诚防火科技集团是一家从事消防产品及防火阻燃材料研发与生产的科技型企业，坐落于“防火保温材料之乡”——河北省廊坊市大城县留各庄镇，地处京津冀经济圈腹地，紧邻雄安新区，交通便利，是河北省防火材料行业重点企业。

集团设备先进，技术力量雄厚，拥有先进的全自动纳米阻燃帆布生产线2条、防火布系列生产线4条、钢结构防火涂料生产线4条、防火封堵材料生产线8条。集团产品现有纳米布、硅胶布、防火布、防火涂料、封堵材料等全系列产品30多种。广泛应用于建筑、电力、石化、冶金、钢铁、船舶、机械制造、造纸、港口、航天等领域。产品销往全国各地，并出口俄罗斯、印度、巴基斯坦、泰国、越南、中东、东南亚等国家和地区。

集团所有产品均已通过应急管理部消防产品合格评定中心的严格审查及四川、天津、广东、山东等国家权威产品质量监督检验中心检验，产品耐火性能及其他主要性能指标均达到或超过国家标准，并于2015年顺利通过了ISO9001质量管理体系认证。

集团全体员工秉承“百年伟业，诚信为本”的企业精神，坚持“追求卓越，质量图强，匠心筑梦，稳健成长”的发展理念，以“打造防火材料知名企业，雄踞防火建材行业巅峰”为企业愿景，经过十余年拼搏，实现了企业的跨越式发展，赢得社会各界的高度赞誉，先后获得国家级高新技术企业、国家级科技型中小企业及省级专精特新企业。

Weicheng Fire Protection Technology Group is a high-tech enterprise specializing in the research, development, and production of firefighting products and flame-retardant materials. Located in Liugezhuang Town, Dacheng County, Langfang City, Hebei Province—a region renowned as the "Hometown of Fireproof and Thermal Insulation Materials"—the company sits at the heart of the Beijing-Tianjin-Hebei economic zone, adjacent to the Xiongan New Area. With convenient transportation, it stands as a key player in Hebei Province's fireproof materials industry.

The group has advanced equipment and strong technical strength, with 2 fully automatic nano flame retardant canvas production lines, 4 fireproof cloth series production lines, 4 steel structure fireproof coating production lines, and 8 fireproof sealing material production lines. The group currently has over 30 types of products including nano cloth, silicone tape, fireproof cloth, fireproof coating, sealing materials, and other full range products. Widely used in the fields of construction, electricity, petrochemicals, metallurgy, steel, shipbuilding, machinery manufacturing, papermaking, ports, aerospace, etc., our products are sold throughout the country and exported to countries and regions such as Russia, India, Pakistan, Thailand, Vietnam, the Middle East, and Southeast Asia.

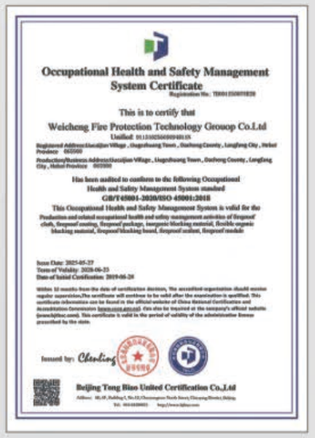
All products of the group have passed the strict review of the Fire Product Qualification Assessment Center of the Emergency Management Department and the inspection of national authoritative product quality supervision and inspection centers in Sichuan, Tianjin, Guangdong, Shandong, etc. The fire resistance performance and other major performance indicators of the products have reached or exceeded the national standards, and have successfully passed the ISO9001 quality management system certification in 2015.

All employees of the group adhere to the corporate spirit of "a century of great achievements, integrity-based", adhere to the development concept of "pursuing excellence, striving for strong quality, building dreams with ingenuity, and steady growth", and take "building a well-known enterprise in fireproof materials and dominating the peak of the fireproof building materials industry" as the corporate vision. After more than ten years of hard work, the enterprise has achieved leapfrog development and won high praise from all sectors of society. It has successively won national high-tech enterprises, national technology-based small and medium-sized enterprises, and provincial specialized and new enterprises.

Ulterior motive
Can do better

Qualifications Honors

资质荣誉



INDUSTRY GIANTS 行业巨擘 谁与争锋
RENOWNED **WORLDWIDE**


检验报告
检验报告
检验报告
检验报告
检验报告


消防产品认证证书

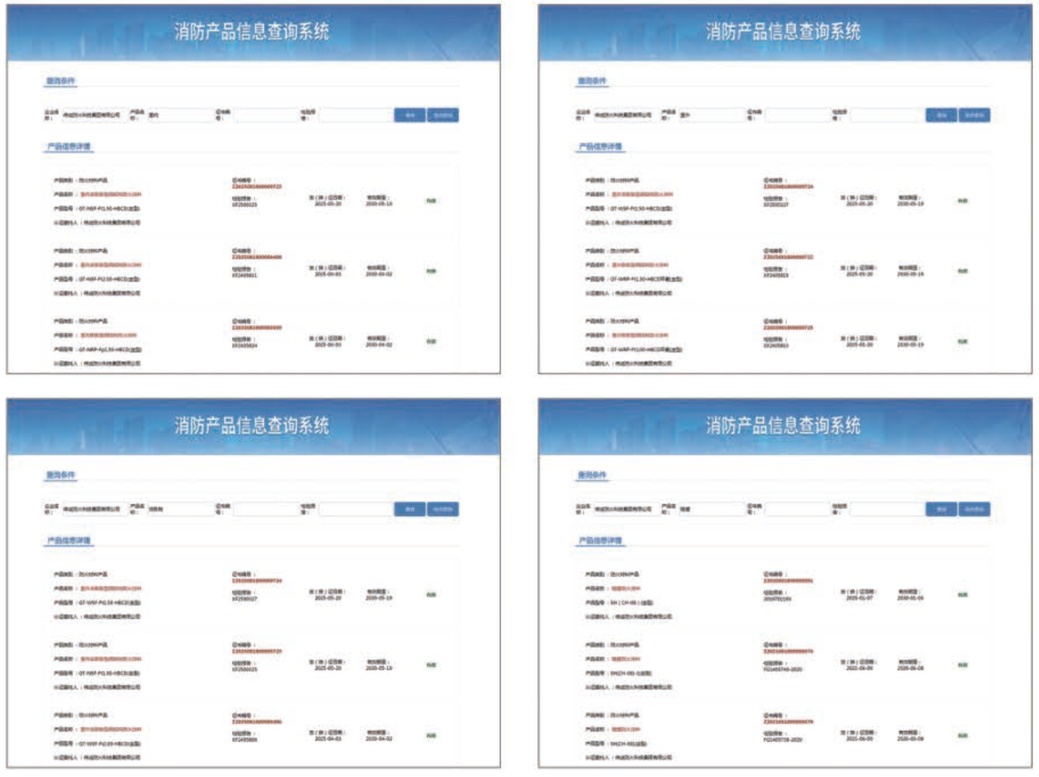

检验报告
检验报告
检验报告
检验报告
检验报告


消防产品认证证书


检验报告
检验报告
检验报告
检验报告
检验报告


消防产品认证证书

Information + Inquiry
信息查询



从追随者到领跑者
FROM FOLLOWER TO LEADER

部分优质合作单位
Some high-quality cooperative units

中国石化 · 中国石油 · 中国电建 POWERCHINA · 中国中铁 · 中国核建 China Nuclear E&C Group
中国·京冶 · 中国联通 · 中国移动 China Mobile · 中国电信 CHINA TELECOM · 中国海油
中國建築 · 国家电网公司 STATE GRID CORPORATION OF CHINA · 中天集团 ZHONGTIAN GROUP · 中国铁建 · 万达集团 WANDA GROUP
恒大集团 EVERGRANDE GROUP · 华润置地 品质给城市更多改变 · 万科 让建筑赞美生命 · 绿地集团 Greenland Group · 保利地产
山东电建 · 富力地产 R&F PROPERTIES · 荣盛 RiseSun · 鸿路集团 HOLU GROUP · 绿城集团 GREENTOWN

防火涂料系列
FIREPROOF COATING SERIES

CONTENTS
目录

WEI CHENG 伟诚防火科技
FIRE PREVENTION TECHNOLOGY

INDOOR EXPANSION TYPE STEEL STRUCTURE FIREPROOF COATING (WATER-BASED)

室内膨胀型钢结构防火涂料（水基型）

■产品介绍

室内膨胀型钢结构防火涂料（水基型）耐火时间一般分为4个等级：1h，1.5h，2h，2.5h，一般适用于钢结构厂房中的檩条、钢梁等部位。该种涂料遇火时迅速膨胀发泡，形成致密均匀的防火隔热层，从而达到保护基材的作用。同时该涂料具有优良的理化性能，干燥快、抗潮、抗酸碱、耐火时间长等特点。

■应用范围

本产品可广泛用于工业钢结构厂房、化工厂、大型船舶、体育场馆、候机楼、石化设备、管道、高层建筑等装饰性要求很高的室内钢结构的防火保护。

■施工工艺

1、施工前检查防腐涂层的完整情况，在防腐涂层验收合格后方可进行防火涂料施工。
2、涂装前将构件表面的灰尘、油渍、锈斑、焊渣、毛刺等清理干净。
3、施工环境温度宜在5℃-38℃之间，相对湿度不宜大于85%，且空气流通，当风速大于5m/s、雨雪天或构件表面结露时，不宜施工。
4、该涂料可采用喷涂、抹涂施工工艺。
5、以喷涂为例，开桶后将涂料用搅拌机搅拌均匀，若太稠可适量加水稀释（以施工不产生流挂为准），该涂料分层涂覆，空气压力0.4-0.6Mpa状态下进行喷涂，第一次喷涂厚度＜1mm，待完全干燥后（以手扣不动为准）方可进行下一遍施工，每遍施工厚度不宜超过2mm，防止出现流挂、开裂等现象，直至达到所需厚度。
6、涂覆后的涂层应完整、无漏涂、表面均匀、色泽一致，无流挂、脱落、开裂现象。

■技术要求

1.理化性能：

检验项目	检验结果
在容器中的状态	经搅拌后呈均匀细腻状态或稠厚流体状态，无结块。
干燥时间(表干)/h	≤12
初期干燥抗裂性	不出现裂纹
粘接强度/Mpa	0.67
PH值	≥7
耐水性/h	24h试验后，涂层无起层、发泡、脱落等现象，隔热效率衰减量为5%。
耐冷热循环性/次	15次试验后，涂层无开裂、剥落、起泡等现象，隔热效率无衰减。

2.耐火性能：根据构件耐火时间要求，喷涂相应的涂层厚度。（如下表所示）

产品名称	耐火时间（h）	涂层厚度（mm）
室内膨胀型钢结构防火涂料 GT-NSP-Fp1.00-HBCD	1	1.5
室内膨胀型钢结构防火涂料 GT-NSP-Fp1.50-HBCD	1.5	2.03
室内膨胀型钢结构防火涂料 GT-NSP-Fp2.00-HBCD	2	3.0
室内膨胀型钢结构防火涂料 GT-NSP-Fp2.00-HBCD(2.50H)	2.5	4.0
室内膨胀型钢结构防火涂料 GT-NSP-Fp2.00-HBCD(3.00H)	3.0	6.8

■Product introduction

Indoor intumescent steel structure fireproof coating (water-based) fire resistance time is generally divided into 4 levels: 1h, 1.5h, 2h, 2.5h, generally applicable to purlins, steel beams and other parts in steel structure workshops. This kind of coating rapidly expands and foams when exposed to fire to form a dense and uniform fire-proof and heat-insulating layer, thereby achieving the function of protecting the substrate. At the same time, the coating has excellent physical and chemical properties, fast drying, moisture resistance, acid and alkali resistance, and long fire resistance.

■Scope of application

This product can be widely used in the fire protection of industrial steel structure workshops, chemical plants, large ships, stadiums, terminal buildings, petrochemical equipment, pipelines, high-rise buildings and other high-decorative indoor steel structures.

■Construction technology

1. Check the integrity of the anti-corrosion coating before construction. After the anti-corrosion coating is qualified, the fire-resistant coating can be constructed.
2. Clean up the dust, oil stains, rust spots, welding slag and burrs on the surface of the components before painting.
3. The construction environment temperature should be between 5℃-38℃, the relative humidity should not be greater than 85%, and the air should be circulated. When the wind speed is greater than 5m/s, rain or snow or condensation on the surface of the components, construction is not suitable.
4. The coating can be sprayed or wiped.
5. Take spraying as an example. After opening the barrel, stir the paint evenly with a mixer. If it is too thick, add water to dilute it (subject to no sag during construction). The paint is applied in layers and the air pressure is 0.4-0.6Mpa. For spraying, the thickness of the first spraying is less than 1mm, and the next construction can be carried out after it is completely dried (with the hand buckle still). The thickness of each construction should not exceed 2mm to prevent sagging, cracking, etc., until it reaches The required thickness.
6. After coating, the coating should be complete, no missing coating, uniform surface, consistent color, and no sagging, falling off, or cracking.

■Technical requirements

1. Physical and chemical properties:

Test items	test result
State in the container	After stirring, it is in a uniform and delicate state or a thick fluid state, without agglomeration.
Drying time (surface dry)/h	≤12
Initial drying and crack resistance	No cracks
Bonding strength/Mpa	0.67
PH value	≥7
Water resistance/h	After the 24h test, the coating showed no delamination, foaming, or shedding, and the attenuation of thermal insulation efficiency was 5%.
Resistance to cold and heat cycles/time	After 15 tests, the coating showed no cracking, peeling, blistering, or other phenomena, and the insulation efficiency did not decrease.

2. Fire resistance: According to the requirements of the fire resistance time of the components, spray the corresponding coating thickness. (As shown in the table below)

Product name	Fire resistance time (h)	Coating thickness (mm)
Indoor expansion type steel structure fireproof coating GT-NSP-Fp1.00-HBCD	1	1.5
Indoor expansion type steel structure fireproof coating GT-NSP-Fp1.50-HBCD	1.5	2.03
Indoor expansion type steel structure fireproof coating GT-NSP-Fp2.00-HBCD	2	3.0
Indoor expansion type steel structure fireproof coating GT-NSP-Fp2.00-HBCD(2.50H)	2.5	4.0
Indoor expansion type steel structure fireproof coating GT-NSP-Fp2.00-HBCD(3.00H)	3.0	6.8

WEI CHENG 伟诚防火科技
FIRE PREVENTION TECHNOLOGY

INDOOR EXPANSION TYPE STEEL STRUCTURE FIREPROOF COATING (SOLVENT TYPE)

室内膨胀型钢结构防火涂料（溶剂型）

■产品介绍

室内膨胀型钢结构防火涂料（溶剂型）过火时形成均匀而致密的蜂窝状或海绵状的炭质泡沫层，对可燃性基材有良好的保护作用。该种涂料耐水、防潮、防霉、防虫等性能比较优异，适合于较潮湿的地区和相应的部位使用。涂层的光泽度较好，具有较好的附着力、良好的成膜性能，硬度大、耐洗刷性、耐玷污性。

■应用范围

室内膨胀型钢结构防火涂料（溶剂型）适用于一般工业、及民用建筑、高层建筑、酒店、文化娱乐场所等建筑的钢结构上，起到防火保护作用。

■技术要求

1.理化性能：

检验项目	检验结果
在容器中的状态	经搅拌后呈均匀细腻状态或稠厚流体状态，无结块。
干燥时间(表干)/h	≤12
初期干燥抗裂性	不出现裂纹
粘接强度/Mpa	1.08
PH值	≥7
耐水性/h	24h试验后，涂层无起层、发泡、脱落等现象，隔热效率衰减量为10.2%。
耐冷热循环性/次	15次试验后，涂层无开裂、剥落、起泡等现象，隔热效率衰减量为15.3%。

2.耐火性能：根据构件耐火时间要求，喷涂相应的涂层厚度。（如下表所示）

产品名称	耐火时间（h）	涂层厚度（mm）
室内膨胀型钢结构防火涂料 GT-NRP-Fp1.50-HB CD	1.5	2.0
室内膨胀型钢结构防火涂料 GT-NRP-Fp2.00-HB CD	2	3.0

■注意事项

1、防火涂料施工前应将电缆表面的浮尘、油污、杂物等清洗、打磨干净，待表面干燥后可进行防火涂料的施工。
2、本产品可使用喷涂、抹涂、刷涂、辊涂等施工方法。
3、施工现场必须严禁烟火、杜绝火种。
4、本产品有效储存期为6个月。

■Product introduction

Indoor expansion type steel structure fireproof coating (solvent type) will form a uniform and dense honeycomb or sponge-like carbon foam layer when overfire, which has a good protective effect on combustible substrates. This kind of coating has excellent properties such as water resistance, moisture resistance, mildew resistance and insect resistance, and is suitable for use in humid areas and corresponding parts. The coating has good gloss, good adhesion, good film-forming properties, high hardness, scrub resistance, and stain resistance.

■Scope of application

Indoor expansion type steel structure fireproof coating (solvent type) is suitable for steel structure of general industry, civil buildings, high-rise buildings, hotels, cultural and entertainment venues, etc., to play a role in fire protection.

■Technical requirements

1. Physical and chemical properties:

Test items	test result
State in the container	After stirring, it is in a uniform and delicate state or a thick fluid state, without agglomeration.
Drying time (surface dry)/h	≤12
Initial drying and crack resistance	No cracks
Bonding strength/Mpa	1.08
PH value	≥7
Water resistance/h	After the 24h test, the coating showed no delamination, foaming, peeling, etc., and the attenuation of thermal insulation efficiency was 10.2%.
Resistance to cold and heat cycles/time	After 15 tests, the coating showed no cracking, peeling, blistering, or other phenomena, and the insulation efficiency decreased by 15.3%.

2. Fire resistance: According to the requirements of the fire resistance time of the components, spray the corresponding coating thickness. (As shown in the table below)

Product name	Fire resistance time (h)	Coating thickness (mm)
Indoor expansion type steel structure fireproof coating GT-NRP-Fp1.50-HB CD	1.5	2.0
Indoor expansion type steel structure fireproof coating GT-NRP-Fp2.00-HB CD	2	3.0

■Notes

1. The floating dust, oil stains and debris on the cable surface should be cleaned and polished before the construction of the fireproof coating. After the surface is dry, the construction of the fireproof coating can be carried out.
2. This product can use spraying, wiping, brushing, roller coating and other construction methods.
3. Fireworks and fires must be strictly prohibited at the construction site.
4. The effective storage period of this product is 6 months.

WEI CHENG 伟诚防火科技
FIRE PREVENTION TECHNOLOGY

INDOOR EXPANSION TYPE STEEL STRUCTURE FIREPROOF COATING (SPECIAL WATER-BASED TYPE)

室内膨胀型钢结构防火涂料（特种水基型）

■产品介绍

室内膨胀型钢结构防火涂料（特种水基型）一般适用于化工厂中的钢结构檩条、钢梁等部位。该种涂料适用于烃类（HC）火灾升温条件中。并具有优良的理化性能，干燥快、抗潮、抗酸碱、耐火性好等特点。

■应用范围

本产品可广泛用于石化、石油、工业钢结构厂房、大型船舶、体育场馆、候机楼、管道、高层建筑等对耐火时间要求高，装饰性要求高的钢结构的防火保护。

■施工工艺

1、施工前检查防腐涂层的完整情况，在防腐涂层验收合格后方可进行防火涂料施工。
2、涂装前将构件表面的灰尘、油渍、锈斑、焊渣、毛刺等清理干净。
3、施工环境温度宜在5℃-38℃之间，相对湿度不宜大于85%，且空气流通，当风速大于5m/s、雨雪天或构件表面结露时，不宜施工。
4、该涂料可采用喷涂、抹涂施工工艺。
5、该涂料分层涂覆，第一遍施工厚度控制在0.5mm左右，待实干后方可涂层第二遍，第二遍涂层厚度控制在1mm左右，直至喷涂到规定厚度。

■技术要求

1.理化性能：

检验项目	检验结果
在容器中的状态	经搅拌后呈均匀细腻状态或稠厚流体状态，无结块。
粘接强度/Mpa	0.51
耐水性	24h试验后，涂层无起层、发泡、脱落等现象，隔热效率衰减量为13.3%。
耐冷热循环性/次	15次试验后，涂层无开裂、剥落、起泡等现象，隔热效率衰减量为9.3%。

2.耐火性能：根据构件耐火时间要求，喷涂相应的涂层厚度。（如下表所示）

产品名称	耐火时间（h）	涂层厚度（mm）
室内膨胀型钢结构防火涂料 GT-NSP-Ft1.00-HBCD	1	2.0
室内膨胀型钢结构防火涂料 GT-NSP-Ft1.50-HBCD	1.5	3.0
室内膨胀型钢结构防火涂料 GT-NSP-Ft2.00-HBCD	2	4.0

■注意事项

1、本涂料不能与油性涂料在湿态下混合使用。
2、施工人员需注意防护，如不慎入眼立即用清水清洗。
3、本涂料不燃、不爆炸、无腐蚀性，属非危险品，各类交通工具均可运输。

■Product introduction

Indoor expansion type steel structure fireproof coating (special water-based type) is generally suitable for steel structure purlins, steel beams and other parts in chemical plants. This kind of coating is suitable for hydrocarbon (HC) fire heating conditions. And has excellent physical and chemical properties, fast drying, moisture resistance, acid and alkali resistance, and good fire resistance.

■Scope of application

This product can be widely used in petrochemical, petroleum, industrial steel structure factories, large ships, stadiums, terminal buildings, pipelines, high-rise buildings, etc., which require high fire resistance time and high decorative requirements for fire protection of steel structures.

■Construction technology

1. Check the integrity of the anti-corrosion coating before construction. After the anti-corrosion coating is qualified, the fire-resistant coating can be constructed.
2. Clean up the dust, oil stains, rust spots, welding slag and burrs on the surface of the components before painting.
3. The construction environment temperature should be between 5℃-38℃, the relative humidity should not be greater than 85%, and the air should be circulated. When the wind speed is greater than 5m/s, rain or snow or condensation on the surface of the components, construction is not suitable.
4. The coating can be sprayed or wiped.
5. The coating is applied in layers, and the thickness of the first pass is controlled to be about 0.5mm, and the second coat can be applied after it dries. The thickness of the second coat is controlled at about 1mm until the spraying reaches the specified thickness.

■Technical requirements

1. Physical and chemical properties:

Test items	test result
State in the container	After stirring, it is in a uniform and delicate state or a thick fluid state, without agglomeration.
Bonding strength/Mpa	0.51
Water resistance	After the 24h test, the coating showed no delamination, foaming, peeling, etc., and the thermal insulation efficiency attenuation was 13.3%.
Resistance to cold and heat cycles/time	After 15 tests, the coating showed no cracking, peeling, blistering, or other phenomena, and the insulation efficiency decreased by 9.3%.

2. Fire resistance: According to the requirements of the fire resistance time of the components, spray the corresponding coating thickness. (As shown in the table below)

Product name	Fire resistance time (h)	Coating thickness (mm)
Indoor intumescent steel structure fireproof coating GT-NSP-Ft1.00-HB CD	1	2.0
Indoor intumescent steel structure fireproof coating GT-NSP-Ft1.50-HB CD	1.5	3.0
Indoor intumescent steel structure fireproof coating GT-NSP-Ft2.00-HB CD	2	4.0

■Notes

1. This paint cannot be mixed with oil-based paint in wet state.
2. The construction personnel should pay attention to protection, and wash them with clean water immediately if they get into eyes accidentally.
3. This coating is non-flammable, non-explosive, non-corrosive, it is a non-dangerous product, and can be transported by various vehicles.

WEI CHENG 伟诚防火科技
FIRE PREVENTION TECHNOLOGY

INDOOR NON-EXPANDABLE STEEL STRUCTURE FIREPROOF COATING

室内非膨胀型钢结构防火涂料

■产品介绍

本产品是我公司根据GB14907-2018国家标准研制成功的产品，该产品适用于钢结构表面喷涂，形成一层隔热防火层，使其在火灾中受到隔热保护。具有施工方便快捷，涂层附着力强，机械强度高，耐火极限时间长，耐火性能稳定可靠等特点。

■应用范围

适用于室内承重钢结构建筑防火保护工程，如：厂房、库房、体育场馆、车站、航站楼、石油化工、大型建筑等室内钢结构建筑防火保护工程。

■施工工艺

1、以喷涂为主，也可抹涂与喷抹结合。
2、基材处理：施工前彻底清除钢构件上的灰尘、油污、浮锈，然后再刷防锈漆，经检查钢构件表面完全刷涂防锈漆并干燥后，方可喷涂防火涂料。
3、第一遍喷涂 胶、粉、水，按比例混合后，用搅拌机搅拌5-10分钟，待均匀后进行喷涂，喷涂厚度＜2mm，喷涂后要经过2-3天彻底干燥后才能进行下一遍喷涂。
4、第二遍喷涂 胶、粉、水，按比例混合后，用搅拌机搅拌5-10分钟，待均匀后进行喷涂，喷涂厚度6-8mm为宜，干燥48小时后才能进行下一遍喷涂。
5、第三遍喷涂 胶、粉、水，按比例混合后，用搅拌机搅拌5-10分钟，待均匀后进行喷涂，喷涂厚度6-8mm为宜，干燥48小时后才能进行下一遍喷涂。
6、第四遍喷涂 胶、粉、水，按比例混合后，用搅拌机搅拌5-10分钟，待均匀后进行喷涂，直喷涂到相应的厚度。

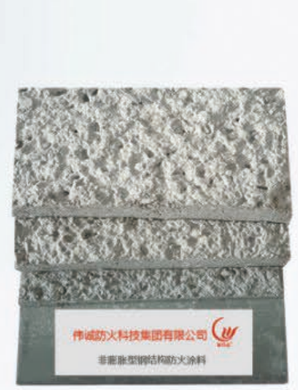
■技术要求

1.理化性能：

检验项目	检验结果
在容器中的状态	经搅拌后呈稠厚流体状态，无结块。
干燥时间(表干)/h	≤24
初期干燥抗裂性	出现1-3条裂纹，小于0.5mm
粘接强度/Mpa	0.32
PH值	≥7
干密度(kg/m³)	≤500
耐水性	24h试验后，涂层无起层、发泡、脱落等现象，隔热效率衰减量为35%。
耐冷热循环性/次	15次试验后，涂层无开裂、剥落、起泡等现象，隔热效率无衰减。

2.耐火性能：根据构件耐火时间要求，喷涂相应的涂层厚度。（如下表所示）

产品名称	耐火时间（h）	涂层厚度（mm）
室内非膨胀钢结构防火涂料 GT-NSF-Fp2.00-HBCD	2	20
室内非膨胀钢结构防火涂料 GT-NSF-Fp2.50-HBCD	2.5	25
室内非膨胀钢结构涂料 GT-NSF-Fp3.00-HBCD	3	30



■Product introduction

This product is a product successfully developed by our company in accordance with the GB14907-2018 national standard. This product is suitable for spraying on the surface of steel structures to form a layer of heat insulation and fire protection layer, so that it will be insulated and protected in fire. It has the characteristics of convenient and fast construction, strong coating adhesion, high mechanical strength, long fire resistance limit time, stable and reliable fire resistance, etc.

■Scope of application

It is suitable for indoor load-bearing steel structure building fire protection projects, such as: factory buildings, warehouses, stadiums, stations, terminals, petrochemicals, large buildings and other indoor steel structure building fire protection projects.

■Construction technology

1. It is mainly spraying, and it can also be combined with wiping and spraying
2. Substrate treatment: thoroughly remove dust, oil stains, and rust on the steel components before construction, and then paint the anti-rust paint. After checking the surface of the steel components, the anti-rust paint is completely painted and dried before spraying the fire-resistant paint.
3. Spray glue, powder, and water for the first time. After mixing in proportion, stir with a mixer for 5-10 minutes. After being evenly sprayed, the spraying thickness is less than 2mm. After spraying, it can only be dried after 2-3 days Spray it again.
4. Second spraying: After mixing the glue, powder, and water in proportion, stir with a mixer for 5-10 minutes, and spray after it is uniform. The spray thickness is 6-8mm, and the next spray can be done after drying for 48 hours.
5. The third spraying: After mixing the glue, powder, and water in proportion, stir with a mixer for 5-10 minutes, and spray it after it is uniform. The spray thickness is 6-8mm, and the next spray can be done after drying for 48 hours.
6. The fourth spraying: After mixing glue, powder and water according to the proportion, stir with a mixer for 5-10 minutes, and spray it until it is uniform, and spray it to the corresponding thickness.

■Technical requirements

1. Physical and chemical properties:

Test items	test result
State in the container	After stirring, it becomes a thick fluid state without agglomeration.
Drying time (surface dry)/h	≤24
Initial drying and crack resistance	There are 1-3 cracks, less than 0.5mm
Bonding strength/Mpa	0.32
PH value	≥7
Dry density (kg/m³)	≤500
Water resistance	After the 24h test, the coating showed no delamination, foaming, peeling, etc., and the attenuation of the thermal insulation efficiency was 35%.
Resistance to cold and heat cycles/time	After 15 tests, the coating showed no cracking, peeling, blistering, or other phenomena, and the insulation efficiency did not decrease.

2. Fire resistance: According to the requirements of the fire resistance time of the components, spray the corresponding coating thickness. (As shown in the table below)

Product name	Fire resistance time (h)	Coating thickness (mm)
Indoor non-expanding steel structure fireproof coating GT-NSF-Fp2.00-HBCD	2	20
Indoor non-expanding steel structure fireproof coating GT-NSF-Fp2.50-HBCD	2.5	25
Indoor non-expandable steel structure paint GT-NSF-Fp3.00-HBCD	3	30

WEI CHENG 伟诚防火科技
FIRE PREVENTION TECHNOLOGY

INDOOR NON-EXPANDABLE STEEL STRUCTURE FIREPROOF COATING (SPECIAL TYPE)

室内非膨胀型钢结构防火涂料（特种型）

■产品介绍

室内非膨胀型钢结构防火涂料（特种型）用于石油化工设施、变配电站等特殊建筑物钢结构表面的防火保护，特种钢结构防火涂料在型式试验中采用烃类（HC）火灾升温试验条件。对防火涂料涂层的耐火隔热等性能要求很高。室内非膨胀型钢结构防火涂料（特种型）涂层导热系数低，耐火性好、抗氧化、粉化能力强，涂层遇火形成高密度釉层即隔热又耐进一步氧化，使其耐火极限达3.0小时以上。

■应用范围

室内非膨胀型钢结构防火涂料（特种型）适用于化工设备、核电站等石油化工、冶金、电厂等室内钢结构建筑的防火保护工程,该涂料具有施工方便、涂层附着力强、机械强度高、耐火时间长等特点。在HC升温条件下能有效地阻隔火焰蔓延，为钢结构提供了可靠的防火保护。

■技术要求

1.理化性能：

检验项目	检验结果
在容器中的状态	经搅拌后呈稠厚流体状态，无结块。
粘接强度Mpa	0.20
耐水性	24h试验后，涂层无起层、发泡、脱落等现象，隔热效率衰减量为9.8%。
耐冷热循环性/次	15次试验后，涂层无开裂、剥落、起泡等现象，隔热效率衰减量为12.1%。

2.耐火性能：根据构件耐火时间要求，喷涂相应的涂层厚度。（如下表所示）

产品名称	耐火时间（h）	涂层厚度（mm）
室内非膨胀型钢结构防火涂料 GT-NSF-Ft1.50-HB CD	1.5	21
室内非膨胀型钢结构防火涂料 GT-NSF-Ft2.00-HB CD	2	26
室内非膨胀型钢结构防火涂料 GT-NSF-Ft2.50-HB CD	2.5	30
室内非膨胀型钢结构防火涂料 GT-NSF-Ft3.00-HB CD	3	35

■注意事项

1、本产品由低塑复合袋内衬塑料袋包装，储运温度宜在3~40℃，不可室外储存和在太阳下曝晒。
2、 喷好的涂层应避免雨水冲刷。
3、产品有效储存期为6个月。

■Product introduction

Indoor non-expandable steel structure fireproof coating (special type) is used for the fire protection of the steel structure surface of special buildings such as petrochemical facilities and substations. The special steel structure fireproof coating adopts hydrocarbon (HC) fire temperature rise test in the type test condition. High requirements for the fire-resistant and heat-insulating properties of the fire-retardant coating. Indoor non-expandable steel structure fireproof coating (special type) The coating has low thermal conductivity, good fire resistance, anti-oxidation, and strong pulverization ability. The coating forms a high-density glaze layer in case of fire, which is heat-insulating and resistant to further oxidation, making it to the limit of fire resistance Up to 3.0 hours or more.

■Scope of application

Indoor non-expandable steel structure fireproof coating (special type) is suitable for fire protection projects of chemical equipment, nuclear power plants and other petrochemical, metallurgy, power plants and other indoor steel structure buildings. The coating has convenient construction, strong coating adhesion, high mechanical strength, Features such as long fire resistance. Under the condition of HC heating, it can effectively block the spread of flame and provide reliable fire protection for the steel structure.

■Technical requirements

1. Physical and chemical properties:

Test items	test result
State in the container	After stirring, it becomes a thick fluid state without agglomeration.
Bonding strength Mpa	0.20
Water resistance	After the 24h test, the coating showed no delamination, foaming, or shedding, and the attenuation of the thermal insulation efficiency was 9.8%.
Resistance to cold and heat cycles/time	After 15 tests, the coating showed no cracking, peeling, blistering, or other phenomena, and the insulation efficiency decreased by 12.1%.

2. Fire resistance: According to the requirements of the fire resistance time of the components, spray the corresponding coating thickness. (As shown in the table below)

Product name	Fire resistance time (h)	Coating thickness (mm)
Indoor non-expandable steel structure fireproof coating GT-NSF-Ft1.50-HB CD	1.5	21
Indoor non-expandable steel structure fireproof coating GT-NSF-Ft2.00-HB CD	2	26
Indoor non-expandable steel structure fireproof coating GT-NSF-Ft2.50-HB CD	2.5	30
Indoor non-expandable steel structure fireproof coating GT-NSF-Ft3.00-HB CD	3	35

■Notes

1. This product is packaged in a low-plastic composite bag lined with a plastic bag. The storage and transportation temperature should be 3~40℃. It should not be stored outdoors or exposed to the sun.
2. The sprayed coating should avoid rain washing.
3. The effective storage period of the product is 6 months.

WEI CHENG 伟诚防火科技
FIRE PREVENTION TECHNOLOGY

OUTDOOR EXPANSION TYPE STEEL STRUCTURE FIREPROOF COATING (WATER-BASED)

室外膨胀型钢结构防火涂料（水基型）

■产品介绍

室外膨胀型钢结构防火涂料（水基型）一般适用于室外钢结构厂房中的檩条、钢梁等部位。该种涂料是由高强度特种阻燃材料、高效阻燃剂、发泡剂等组成的单组份涂料，搅拌均匀以后可直接进行施工。

■产品特点

1、漆膜附着力强、柔韧性好、抗冲击性优异。
2、涂层良好的耐久性和抗疲劳性、无粉化性、裂纹、掉渣、脱落等现象，涂层与钢结构粘接良好。
3、具有优良的耐热、耐酸、碱、盐腐蚀、耐化工大气、抗裂性、抗渗透性。
4、涂层薄、施工简单方便、粘接力强、用量少、耐火时间长。

■应用范围

本产品可广泛用于工业钢结构厂房、化工厂、大型船舶、体育场馆、候机楼、石化设备、管道、高层建筑等装饰性要求很高的室内钢结构的防火保护。

■技术要求

1.理化性能：

检验项目	检验结果
在容器中的状态	经搅拌后呈均匀细腻状态或稠厚流体状态，无结块。
耐曝热性	720h试验后，涂层无起层、脱落、空鼓、开裂等现象，隔热效率无衰减。
耐湿热性	504h试验后，涂层无起层、脱落等现象，隔热效率衰减量为5%。
粘接强度/Mpa	0.70
耐冻融循环性/次	15次试验后，涂层无开裂、脱落、起泡等现象，隔热效率无衰减。
耐酸性	360h试验后，涂层无起层、脱落、开裂等现象，隔热效率衰减量为17%。
耐碱性	360h试验后，涂层无起层、脱落、开裂等现象，隔热效率衰减量为10%。
耐盐雾腐蚀性	30次试验后，涂层无起泡，明显的变质、软化等现象，隔热效率衰减量为5%
耐紫外线辐照性	60次试验后，涂层无起层、开裂、粉化等现象，隔热效率衰减量为2%。

2.耐火性能：根据构件耐火时间要求，喷涂相应的涂层厚度。（如下表所示）

产品名称	耐火时间（h）	涂层厚度（mm）
室外膨胀型钢结构防火涂料 GT-WSP-Fp1.50-HBCD	1.5	2.0
室外膨胀型钢结构防火涂料 GT-WSP-Fp2.00-HBCD	2	3.0
室外膨胀型钢结构防火涂料 GT-WSP-Fp2.00-HBCD(2.50H)	2.5	4.0
室外膨胀型钢结构防火涂料 GT-WSP-Fp2.00-HBCD(3.00H)	3.0	6.8

■Product introduction

Outdoor intumescent steel structure fireproof coatings (water-based) are generally suitable for purlins and steel beams in outdoor steel structure workshops. This kind of coating is a one-component coating composed of high-strength special flame-retardant materials, high-efficiency flame-retardants, foaming agents, etc., Which can be directly applied after being evenly stirred.

■Product Features

1. The paint film has strong adhesion, good flexibility and excellent impact resistance.
2. The coating has good durability and fatigue resistance, no pulverization, cracks, slag drop, shedding, etc., and the coating is well bonded to the steel structure.
3. It has excellent heat resistance, acid, alkali, salt corrosion resistance, chemical atmosphere resistance, crack resistance and permeability resistance.
4. The coating is thin, the construction is simple and convenient, the adhesive force is strong, the dosage is small, and the fire resistance time is long.

■Scope of application

This product can be widely used in the fire protection of industrial steel structure workshops, chemical plants, large ships, stadiums, terminal buildings, petrochemical equipment, pipelines, high-rise buildings and other high-decorative indoor steel structures.

■Technical requirements

1. Physical and chemical properties:

Test items	test result
State in the container	After stirring, it is in a uniform and delicate state or a thick fluid state, without clumping.
Heat resistance	After 720 hours of testing, the coating showed no delamination, peeling, hollowing, cracking, or other phenomena,and the thermal insulation efficiency did not decrease.
Humidity and heat resistance	After 504 hours of testing, the coating showed no peeling or detachment, and the insulation efficiency decreased by 5%.
Bonding strength/Mpa	0.70
Freeze-thaw cycle resistance/time	After 15 tests, the coating showed no cracking, peeling, blistering, or other phenomena, and the insulation efficiency did not decrease.
Acid resistance	After 360 hours of testing, the coating showed no delamination, peeling, cracking, or other phenomena, and the insulation efficiency decreased by 17%.
Alkali resistance	After 360 hours of testing, the coating showed no delamination, peeling, cracking, or other phenomena, and the insulation efficiency decreased by 10%.
Salt spray corrosion resistance	After 30 tests, the coating showed no blistering, obvious deterioration, softening, or other phenomena, and the insulation efficiency decreased by 5%
UV radiation resistance	After 60 tests, the coating showed no peeling, cracking, powdering, or other phenomena, and the insulation efficiency decreased by 2%.

2. Fire resistance: According to the requirements of the fire resistance time of the components, spray the corresponding coating thickness. (As shown in the table below)

Product name	Fire resistance time (h)	Coating thickness (mm)
Outdoor intumescent steel structure fireproof coating GT-WSP-Fp1.50-HBCD	1.5	2.0
Outdoor intumescent steel structure fireproof coating GT-WSP-Fp2.00-HBCD	2	3.0
Outdoor intumescent steel structure fireproof coating GT-WSP-Fp2.00-HBCD(2.50H)	2.5	4.0
Outdoor intumescent steel structure fireproof coating GT-WSP-Fp2.00-HBCD(3.00H)	3.0	6.8

WEI CHENG 伟诚防火科技
FIRE PREVENTION TECHNOLOGY

OUTDOOR EXPANSION TYPE STEEL STRUCTURE FIREPROOF COATING (SOLVENT TYPE)

室外膨胀型钢结构防火涂料（溶剂型）

■产品介绍

室外膨胀型钢结构防火涂料（溶剂型）是我公司采用先进技术开发研制的钢结构防火涂料，该涂料遇火膨胀发泡，形成耐火隔热层，阻止热量迅速传向钢基材。

■应用范围

室外膨胀型钢结构防火涂料（溶剂型）适用于体育馆、工业厂房、石油、化工、一般工业、高层建筑、酒店、文化娱乐场所、以及古建筑的结构材料的防火保护。

■技术要求

1.理化性能：

检验项目	检验结果
在容器中的状态	经搅拌后呈均匀细腻状态或稠厚流体状态，无结块
耐曝热性	720h试验后，涂层无起层、脱落、空鼓、开裂等现象，隔热效率衰减量为23.3%。
耐湿热性	504h试验后，涂层无起层、脱落等现象，隔热效率衰减量为18.6%。
粘接强度/Mpa	1.87
耐冻融循环性/次	15次试验后，涂层无开裂、脱落、起泡等现象，隔热效率衰减量为9.3%。
耐酸性	360h试验后，涂层无起层、脱落、开裂等现象，隔热效率衰减量为9.3%。
耐碱性	360h试验后，涂层无起层、脱落、开裂等现象，隔热效率无衰减。
耐盐雾腐蚀性	30次试验后，涂层无起泡，明显的变质、软化等现象，隔热效率衰减量为20.9%
耐紫外线辐照性	60次试验后，涂层无起层、开裂、粉化等现象，隔热效率衰减量为11.6%。

2.耐火性能：根据构件耐火时间要求，喷涂相应的涂层厚度。（如下表所示）

产品名称	耐火时间（h）	涂层厚度（mm）
室外膨胀型钢结构防火涂料 GT-WRP-Fp1.50-HBCD	1.5	2.0
室外膨胀型钢结构防火涂料 GT-WRP-Fp2.00-HBCD	2	3.0

■注意事项

1、涂装工作应在天气晴朗时进行，下雨或雾气大时不要进行涂装施工。
2、施工时环境温度宜控制在5-38℃之间，相对湿度在90%以下；涂刷后24小时内严防雨淋或遇水，当风速大于5m/s、阴雨天和构件表面有结露时，不宜作业。
3、严禁和其他油漆涂料混用。
4、本产品为溶剂型产品，含有易挥发的可燃性溶剂，施工场地必须注意通风，禁止明火及在现场进行焊接施工。
5、施工时请使用必要的防护用具，并避免皮肤接触。

■Product introduction

Outdoor intumescent steel structure fire retardant coating (solvent type) is a steel structure fire retardant coating developed by our company with advanced technology. The coating expands and foams in case of fire to form a refractory insulation layer to prevent heat from being quickly transferred to the steel substrate.

■Scope of application

Outdoor intumescent steel structure fireproof coating (solvent type) is suitable for fire protection of structural materials in stadiums, industrial plants, petroleum, chemical, general industry, high-rise buildings, hotels, cultural and entertainment venues, and ancient buildings.

■Technical requirements

1. Physical and chemical properties:

Test items	test result
State in the container	After stirring, it is in a uniform and delicate state or a thick fluid state, without agglomeration.
Heat resistance	After the 720h test, the coating has no delamination, peeling, hollowing, cracking, etc., and the attenuation of thermal insulation efficiency is 23.3%.
Humidity and heat resistance	After 504 hours of testing, the coating showed no peeling or detachment, and the insulation efficiency decreased by 18.6%.
Bonding strength/Mpa	1.87
Freeze-thaw cycle resistance/time	After 15 tests, the coating showed no cracking, peeling, blistering, or other phenomena, and the insulation efficiency decreased by 9.3%.
Acid resistance	After 360 hours of testing, the coating showed no delamination, peeling, cracking, or other phenomena, and the insulation efficiency decreased by 9.3%.
Alkali resistance	After 360 hours of testing, the coating showed no peeling, detachment, cracking, or other phenomena, and the thermal insulation efficiency did not decrease.
Salt spray corrosion resistance	After 30 tests, the coating showed no blistering, obvious deterioration, softening, or other phenomena, and the insulation efficiency decreased by 20.9%
UV radiation resistance	After 60 tests, the coating showed no peeling, cracking, powdering, or other phenomena, and the insulation efficiency decreased by 11.6%.

2. Fire resistance: According to the requirements of the fire resistance time of the components, spray the corresponding coating thickness. (As shown in the table below)

Product name	Fire resistance time (h)	Coating thickness (mm)
Outdoor intumescent steel structure fireproof coating GT-WRP-Fp1.50-HBCD	1.5	2.0
Outdoor intumescent steel structure fireproof coating GT-WRP-Fp2.00-HBCD	2	3.0

■Notes

1. Painting work should be carried out when the weather is clear, and painting should not be carried out when it is raining or foggy.
2. During construction, the ambient temperature should be controlled between 5-38℃, and the relative humidity should be below 90%; prevent rain or water within 24 hours after painting, when the wind speed is greater than 5m/s, cloudy and rainy days, and there are knots on the surface of the components. It is not suitable to work when exposed.
3. It is strictly forbidden to mix it with other paints.
4. This product is a solvent-based product and contains volatile flammable solvents. The construction site must be ventilated, and open flames and welding on-site are forbidden.
5. Please use necessary protective equipment during construction and avoid skin contact.

WEI CHENG 伟诚防火科技
FIRE PREVENTION TECHNOLOGY

OUTDOOR EXPANSION TYPE STEEL STRUCTURE FIREPROOF COATING (SPECIAL WATER-BASED TYPE)

室外膨胀型钢结构防火涂料（特种水基型）

■产品介绍

室外膨胀型钢结构防火涂料（特种水基型）一般适用于室外化工厂中的钢结构檩条、钢梁等部位。该种涂料适用于烃类（HC）火灾升温条件中。并具有优良的理化性能，干燥快、抗潮、抗酸碱、耐火性好等特点。

■应用范围

本产品可广泛用于石化、石油、工业钢结构厂房、大型船舶、体育场馆、候机楼、管道、高层建筑等装饰性要求很高的钢结构的防火保护。

■技术要求

1.理化性能：

检验项目	检验结果
在容器中的状态	经搅拌后呈均匀细腻状态或稠厚流体状态，无结块。
粘接强度/Mpa	1.0
耐冻融循环性/次	15次试验后，涂层无开裂、脱落、起泡等现象，隔热效率衰减量为23.4%。
耐曝热性	720h试验后，涂层无起层、脱落、空鼓、开裂、等现象，隔热效率衰减量为23.4%。
耐湿热性	504h试验后，涂层无起层、脱落等现象，隔热效率衰减量为22.1%。
耐盐雾腐蚀性	30次试验后，涂层无起泡、明显的变质、软化等现象，隔热效率衰减量为24.7%。
耐紫外线辐照性	60次试验后，涂层无起层、开裂、粉化等现象，隔热效率衰减量为24.7%。

2.耐火性能：根据构件耐火时间要求，喷涂相应的涂层厚度。（如下表所示）

产品名称	耐火时间（h）	涂层厚度（mm）
室外膨胀型钢结构防火涂料 GT-WSP-Ft1.50-HB CD	1.5	3.0
室外膨胀型钢结构防火涂料 GT-WSP-Ft2.00-HB CD	2	4.0

■注意事项

1、本品需储存在0℃以上，且通风、干燥的库房内，禁止雨淋、曝晒、重压与倒置。
2、涂覆的基材表面达到干燥状态、清洁无油污，必要时做打磨处理。
3、基材的表面应做除锈处理。
4、产品有效储存期为6个月。
5、本产品可按一般物料运输方式运输。

■Product introduction

Outdoor intumescent steel structure fireproof coating (special water-based type) is generally suitable for steel structure purlins, steel beams and other parts in outdoor chemical plants. This kind of coating is suitable for hydrocarbon (HC) fire heating conditions. And has excellent physical and chemical properties, fast drying, moisture resistance, acid and alkali resistance, and good fire resistance.

■Scope of application

This product can be widely used in petrochemical, petroleum, industrial steel structure workshops, large ships, stadiums, terminal buildings, pipelines, high-rise buildings and other high-quality decorative steel structures for fire protection.

■Technical requirements

1. Physical and chemical properties:

Test items	test result
State in the container	After stirring, it is in a uniform and delicate state or a thick fluid state, without agglomeration.
Bonding strength/Mpa	1.0
Freeze-thaw cycle resistance/time	After 15 tests, the coating showed no cracking, peeling, blistering, or other phenomena, and the insulation efficiency decreased by 23.4%.
Heat resistance	After 720 hours of testing, the coating showed no delamination, peeling, hollowing, cracking, or other phenomena, and the insulation efficiency decreased by 23.4%.
Humidity and heat resistance	After 504 hours of testing, the coating showed no peeling or detachment, and the insulation efficiency decreased by 22.1%.
Salt spray corrosion resistance	After 30 tests, the coating showed no blistering, obvious deterioration, softening, or other phenomena, and the insulation efficiency decreased by 24.7%.
UV radiation resistance	After 60 tests, the coating showed no peeling, cracking, powdering, or other phenomena, and the insulation efficiency decreased by 24.7%.

2. Fire resistance: According to the requirements of the fire resistance time of the components, spray the corresponding coating thickness. (As shown in the table below)

Product name	Fire resistance time (h)	Coating thickness (mm)
Outdoor Expansive Steel Structure Fireproof Coating GT-WSP-Ft1.50-HB CD	1.5	3.0
Outdoor intumescent steel structure fireproof coating GT-WSP-Ft2.00-HB CD	2	4.0

■Notes

1. This product must be stored in a ventilated and dry warehouse above 0℃. Rain, exposure, heavy pressure and inversion are prohibited.
2. The surface of the coated substrate should be dry, clean and free of oil stains, and be polished if necessary.
3. The surface of the substrate should be derusted.
4. The effective storage period of the product is 6 months.
5. This product can be transported by general material transportation.

WEI CHENG 伟诚防火科技
FIRE PREVENTION TECHNOLOGY

OUTDOOR EXPANSION TYPE STEEL STRUCTURE FIREPROOF COATING (SPECIAL SOLVENT TYPE)

室外膨胀型钢结构防火涂料（特种溶剂型）

■产品介绍

室外膨胀型钢结构防火涂料（特种溶剂型）是我公司采用先进技术开发研制的钢结构防火涂料，适用于烃类（HC）火灾升温条件中，该涂料遇火膨胀发泡，形成耐火隔热层，阻止热量迅速传向钢基材。

■施工工艺

1、防火涂料施工前，应将钢结构表面的尘土、油污、杂物等清理干净并做除锈处理，加涂防锈底漆，待防锈漆实干后，方可进行防火涂料的施工。
2、施工时，对不需要进行防火保护的墙面、门窗、机械设备和其他构件等应进行遮蔽保护。
3、第一次喷涂厚度不宜超过1mm，待完全干燥后方可进行下一遍施工，而后，每遍施工厚度不宜超过2mm，防止出现流挂、开裂等现象。直至达到要求厚度。
4、涂覆后的涂层应完整、无漏涂、表面均匀、色泽一致，无流挂、脱落、开裂现象。

■技术要求

1.理化性能：

检验项目	检验结果
在容器中的状态	经搅拌后呈均匀细腻状态或稠厚流体状态，无结块。
干燥时间(表干)/h	≤12
初期干燥抗裂性	不出现裂纹
粘接强度/Mpa	1.87
PH值	≥7
耐冻融循环性/次	15次试验后，涂层无开裂、脱落、起泡等现象，隔热效率衰减量为9.3%。
耐曝热性	720h试验后，涂层无起层、脱落、空鼓、开裂等现象，隔热效率衰减量为23.3%。
耐湿热性	504h试验后，涂层无起层、脱落等现象，隔热效率衰减量为18.6%。
耐盐雾腐蚀性	30次试验后，涂层无起泡、明显的变质、软化等现象，隔热效率衰减量为20.9%。
耐紫外线辐照性	60次试验后，涂层无起层、开裂、粉化等现象，隔热效率衰减量为11.6%。

2.耐火性能：根据构件耐火时间要求，喷涂相应的涂层厚度。（如下表所示）

产品名称	耐火时间（h）	涂层厚度（mm）
室外膨胀型钢结构防火涂料 GT-WRP-Ft1.00-HBCD	1	2.0
室外膨胀型钢结构防火涂料 GT-WRP-Ft2.00-HBCD	2	4.0

■注意事项

1、本产品可使用喷涂、抹涂、刷涂、辊涂等施工方法。
2、本产品为溶剂型产品，含有易挥发的可燃性溶剂，施工场地必须注意通风，禁止明火及在现场进行焊接施工。
3、本产品有效储存期为6个月。

■Product introduction

Outdoor intumescent steel structure fireproof paint (special solvent type) is a steel structure fireproof paint developed by our company with advanced technology. It is suitable for hydrocarbon (HC) fire heating conditions. The paint expands and foams in case of fire to form a fire-resistant insulation layer. , To prevent the heat from quickly transferring to the steel substrate.

■Construction technology

1. Before the construction of the fireproof coating, the dust, oil stains and debris on the surface of the steel structure should be cleaned up and derusted, and an anti-rust primer should be applied. The construction of the fireproof coating can only be carried out after the anti-rust paint is completely dry.
2. During construction, the walls, doors and windows, mechanical equipment and other components that do not require fire protection should be shielded and protected.
3. The thickness of the first spraying should not exceed 1mm, and the next construction can be carried out after it is completely dried. Then, the thickness of each construction should not exceed 2mm to prevent sagging and cracking. Until the required thickness is reached.
4. The coating after coating should be complete, no missing coating, uniform surface, consistent color, and no sagging, falling off, or cracking.

■Technical requirements

1. Physical and chemical properties:

Test items	test result
State in the container	After stirring, it is in a uniform and delicate state or a thick fluid state, without agglomeration.
Drying time (surface dry)/h	⩽12
Initial drying and crack resistance	No cracks
Bonding strength/Mpa	1.87
PH value	⩾7
Freeze-thaw cycle resistance/time	After 15 tests, the coating showed no cracking, peeling, blistering, or other phenomena, and the insulation efficiency decreased by 9.3%.
Heat resistance	After 720 hours of testing, the coating showed no delamination, peeling, hollowing, cracking, or other phenomena, and the insulation efficiency decreased by 23.3%.
Humidity and heat resistance	After 504 hours of testing, the coating showed no peeling or detachment, and the insulation efficiency decreased by 18.6%.
Salt spray corrosion resistance	After 30 tests, the coating showed no blistering, obvious deterioration, softening, or other phenomena, and the insulation efficiency decreased by 20.9%.
UV radiation resistance	After 60 tests, the coating showed no peeling, cracking, powdering, or other phenomena, and the insulation efficiency decreased by 11.6%.

2. Fire resistance: According to the requirements of the fire resistance time of the components, spray the corresponding coating thickness. (As shown in the table below)

Product name	Fire resistance time (h)	Coating thickness (mm)
Outdoor intumescent steel structure fireproof coating GT-WRP-Ft1.00-HB CD	1	2.0
Outdoor intumescent steel structure fireproof coating GT-WRP-Ft2.00-HB CD	2	4.0

■Notes

1. This product can use spraying, wiping, brushing, roller coating and other construction methods.
2. This product is a solvent-based product and contains volatile flammable solvents. The construction site must be ventilated, and open flames and welding on-site are forbidden.
3. The effective storage period of this product is 6 months.

WEI CHENG 伟诚防火科技
FIRE PREVENTION TECHNOLOGY

OUTDOOR NON-EXPANDABLE STEEL STRUCTURE FIREPROOF COATING

室外非膨胀型钢结构防火涂料

■产品介绍

室外非膨胀型钢结构防火涂料是我公司根据GB 14907-2018 标准研制成功的新型钢结构防火涂料，该产品适用于钢结构表面喷涂，形成一层隔热防火层，使其在火灾中受到隔热保护，室外非膨胀型钢结构防火涂料以无机隔热材料为主要成分，无毒无味，具有施工方便、涂层附着力强、机械强度高、耐火时间长等特点。

■应用范围

室外非膨胀型钢结构防火涂料适用于各种高层建筑、石油、化工、电力、冶金、国防、轻工业等各类室外建筑承重钢结构的防火保护。

■施工工艺

1、施工应在钢结构工程验收合格、钢结构相连的管件安装完毕、屋面防水工程完工之后、内装修之前和不被后续工程所损坏的条件下进行。

2、防火涂料施工前，应将钢结构表面的尘土、油污、杂物等清理干净做除锈处理，加涂防锈底漆，待防锈漆实干后，方可进行防火涂料的施工。施工时，对不需要进行防火保护的墙面、门窗、机械设备和其他构件等应进行遮蔽保护。

3、采用普通漏斗喷枪喷涂：施工前应充分搅拌涂料至均匀状态，每次施工厚度在1-2mm，涂层干燥后进行下一遍施工。

4、施工后的涂层，应防水、避免暴晒、污染和机械的破坏，如有损坏需进行修补。

5、施工过程和涂层干燥固化前，环境温度保持在3-360c，相对湿度≤90%，现场应保持良好的通风。

■技术要求

1.理化性能：

检验项目	检验结果
在容器中的状态	经搅拌后呈稠厚流体状态，无结块。
干燥时间(表干)/h	≤24
初期干燥抗裂性	出现1-3条裂纹，小于0.5mm
粘接强度/Mpa	0.50
PH值	≥7
干密度(kg/m³)	≤650
耐冻融循环性/次	15次试验后，涂层无开裂、脱落、起泡等现象，隔热效率衰减量为7%。
耐曝热性	720h试验后，涂层无起层、脱落、空鼓、开裂等现象，隔热效率衰减量为9%。
耐盐雾腐蚀性	30次试验后，涂层无起泡、明显的变质、软化等现象，隔热效率衰减量为3%。
耐紫外线辐照性	60次试验后，涂层无起层、开裂、粉化等现象，隔热效率衰减量为5%。

2.耐火性能：根据构件耐火时间要求，喷涂相应的涂层厚度。（如下表所示）

产品名称	耐火时间（h）	涂层厚度（mm）
室外非膨胀型钢结构防火涂料 GT-WSF-Fp2.00-HBCD	2	20
室外非膨胀型钢结构防火涂料 GT-WSF-Fp2.50-HBCD	2.5	25
室外非膨胀型钢结构防火涂料 GT-WSF-Fp3.00-HBCD	3	30

■Product introduction

Outdoor non-expandable steel structure fireproof coating is a new type of steel structure fireproof coating successfully developed by our company according to the GB14907-2018 standard. This product is suitable for spraying on the surface of steel structure to form a layer of heat insulation and fire protection layer, so that it will be insulated and protected in fire. , The outdoor non-expandable steel structure fireproof coating is mainly composed of inorganic heat insulation materials, which is non-toxic and tasteless. It has the characteristics of convenient construction, strong coating adhesion, high mechanical strength, and long fire resistance time.

■Scope of application

Outdoor non-expandable steel structure fireproof coatings are suitable for fire protection of load-bearing steel structures of various outdoor buildings such as high-rise buildings, petroleum, chemical, electric power, metallurgy, national defense, light industry, etc.

■Construction technology

1. The construction should be carried out under the condition that the steel structure project has passed the acceptance, the pipe fittings connected to the steel structure have been installed, after the roof waterproofing project is completed, before the interior decoration and will not be damaged by subsequent projects.
2. Before the construction of the fireproof coating, the dust, oil stains, and debris on the surface of the steel structure should be cleaned up for rust removal, and an anti-rust primer should be applied. The construction of the fireproof coating can only be carried out after the anti-rust paint is completely dry. During construction, the walls, doors and windows, mechanical equipment and other components that do not require fire protection shall be shielded and protected.
3. Use ordinary funnel spray gun to spray: the paint should be fully stirred to a uniform state before construction, the thickness of each application is 1-2mm, and the coating is dried for the next time.
4. The coating after construction should be waterproof, avoid sun exposure, pollution and mechanical damage, and repair if damaged.
5. During the construction process and before the coating is dried and cured, the ambient temperature should be kept at 3-360c, the relative humidity should be ≤90%, and the site should be well ventilated.

■Technical requirements

1. Physical and chemical properties:

Test items	test result
State in the container	After stirring, it becomes a thick fluid state without agglomeration.
Drying time (surface dry)/h	≤24
Initial drying and crack resistance	There are 1-3 cracks, less than 0.5mm
Bonding strength/Mpa	0.50
PH value	≥7
Dry density (kg/m³)	≤650
Freeze-thaw cycle resistance/time	After 15 tests, the coating showed no cracking, peeling, blistering, or other phenomena, and the insulation efficiency decreased by 7%.
Heat resistance	After 720 hours of testing, the coating showed no delamination, peeling, hollowing, cracking, or other phenomena, and the insulation efficiency decreased by 9%.
Salt spray corrosion resistance	After 30 tests, the coating showed no blistering, obvious deterioration, softening, or other phenomena, and the insulation efficiency decreased by 3%.
UV radiation resistance	After 60 tests, the coating showed no peeling, cracking, powdering, or other phenomena, and the insulation efficiency decreased by 5%.

2. Fire resistance: According to the requirements of the fire resistance time of the components, spray the corresponding coating thickness. (As shown in the table below)

Product name	Fire resistance time (h)	Coating thickness (mm)
Outdoor non-expandable steel structure fireproof coating GT-WSF-Fp2.00-HB CD	2	20
Outdoor non-expandable steel structure fireproof coating GT-WSF-Fp2.50-HB CD	2.5	25
Outdoor non-expandable steel structure fireproof coating GT-WSF-Fp3.00-HB CD	3	30

WEI CHENG 伟诚防火科技
FIRE PREVENTION TECHNOLOGY

OUTDOOR NON-EXPANDABLE STEEL STRUCTURE FIREPROOF COATING (SPECIAL TYPE)

室外非膨胀型钢结构防火涂料（特种型）

■产品介绍

室外非膨胀型钢结构防火涂料（特种型）用于石油化工设施、变配电站等特殊建筑物钢结构表面的防火保护，特种钢结构防火涂料在型式试验中采用烃类（HC）火灾升温试验条件。对防火涂料涂层的耐火隔热等性能要求很高。室外非膨胀型钢结构防火涂料（特种型）涂层导热系数低，耐火性好、抗氧化、粉化能力强，涂层遇火形成高密度釉层即隔热又耐进一步氧化，使其耐火极限达3.0小时以上。

■应用范围

室外非膨胀型钢结构防火涂料（特种型）适用于特殊室外承重钢结构建筑的防火保护工程，如化工设备、变电站、配电站、火电厂、核电站等石油化工、冶金、电厂等室外钢结构建筑的防火保护工程。

■施工工艺

第一遍喷涂 胶、粉、水、按比例混合后，用搅拌机搅拌5-10分钟，待均匀后进行喷涂，喷涂厚度＜2mm，喷涂后要经过2-3天彻底干燥后才能进行下一遍喷涂。
第二遍喷涂 胶、粉、水、按比例混合后，用搅拌机搅拌5-10分钟，待均匀后进行喷涂，喷涂厚度6-8mm为宜，干燥48小时后才能进行下一遍喷涂。
第三遍喷涂 胶、粉、水、按比例混合后，用搅拌机搅拌5-10分钟，待均匀后进行喷涂，喷涂厚度6-8mm为宜，干燥48小时后才能进行下一遍喷涂。
第四遍喷涂 胶、粉、水、按比例混合后，用搅拌机搅拌5-10分钟，待均匀后进行喷涂，直喷涂到相应的厚度。
注：加水量可根据湿度，温度等条件进行调整。

■技术要求

1.理化性能：

检验项目	检验结果
在容器中的状态	经搅拌后呈稠厚流体状态，无结块。
干燥时间(表干)/h	≤24
初期干燥抗裂性	出现1-3条裂纹，其宽度≤0.5mm
粘接强度/Mpa	0.31
PH值	≥7
耐冻融循环性/次	15次试验后，涂层无开裂、脱落、起泡等现象，隔热效率衰减量为7.4%。
耐曝热性	720h试验后，涂层无起层、脱落、空鼓、开裂等现象，隔热效率衰减量为2.5%。
耐湿热性	504h试验后，涂层无起层、脱落等现象，隔热效率衰减量为7.4%。
耐盐雾腐蚀性	30次试验后，涂层无起泡、明显的变质、软化等现象，隔热效率衰减量为4.9%。
耐紫外线辐照性	60次试验后，涂层无起层、开裂、粉化等现象，隔热效率衰减量为8.6%。

2.耐火性能：根据构件耐火时间要求，喷涂相应的涂层厚度。（如下表所示）

产品名称	耐火时间（h）	涂层厚度（mm）
室外非膨胀型钢结构防火涂料 GT-WSF-Ft1.50-HBCD	1.5	21
室外非膨胀型钢结构防火涂料 GT-WSF-Ft2.00-HBCD	2	26
室外非膨胀型钢结构防火涂料 GT-WSF-Ft2.50-HBCD	2.5	30
室外非膨胀型钢结构防火涂料 GT-WSF-Ft3.00-HBCD	3	35

■Product introduction

Outdoor non-expandable steel structure fireproof coating (special type) is used for the fire protection of the steel structure surface of special buildings such as petrochemical facilities and substations. The special steel structure fireproof coating adopts hydrocarbon (HC) fire temperature rise test in the type test condition. High requirements for the fire-resistant and heat-insulating properties of the fire-retardant coating. Outdoor non-expandable steel structure fireproof coating (special type) The coating has low thermal conductivity, good fire resistance, anti-oxidation, and strong pulverization ability. The coating will form a high-density glaze layer in case of fire, which is heat-insulating and resistant to further oxidation, making it fire resistant Up to 3.0 hours or more.

■Scope of application

Outdoor non-expandable steel structure fireproof coating (special type) is suitable for fire protection projects of special outdoor load-bearing steel structure buildings, such as chemical equipment, substations, distribution stations, thermal power plants, nuclear power plants and other petrochemical, metallurgical, power plants and other outdoor steel structures Fire protection engineering.

■Construction technology

After spraying glue, powder, water, and proportions for the first time, stir with a mixer for 5-10 minutes, and spray evenly after spraying. The thickness of spraying is less than 2mm. After spraying, the next spraying can be done after 2-3 days of thorough drying.
Second spraying: After mixing glue, powder, water, and proportions, stir with a mixer for 5-10 minutes, and spray it evenly. The thickness of the spray is 6-8mm, and the next spray can be done after drying for 48 hours.
The third spraying: After mixing glue, powder, water, and proportions, stir with a mixer for 5-10 minutes, and spray after it is even. The thickness of the spray is 6-8mm, and the next spray can be done after drying for 48 hours.
Fourth spraying After mixing glue, powder, water, and proportions, stir with a mixer for 5-10 minutes, and spray it until it is evenly distributed until it reaches the corresponding thickness.
Note: The amount of water added can be adjusted according to conditions such as humidity and temperature.

■Technical requirements

1. Physical and chemical properties:

Test items	test result
State in the container	After stirring, it becomes a thick fluid state without agglomeration.
Drying time (surface dry)/h	≤24
Initial drying and crack resistance	There are 1-3 cracks, the width of which is ≤0.5mm
Bonding strength/Mpa	0.31
PH value	≥7
Freeze-thaw cycle resistance/time	After 15 tests, the coating showed no cracking, peeling, blistering, or other phenomena, and the insulation efficiency decreased by 7.4%.
Heat resistance	After 720 hours of testing, the coating showed no delamination, peeling, hollowing, cracking, or other phenomena, and the insulation efficiency decreased by 2.5%.
Humidity and heat resistance	After 504 hours of testing, the coating showed no peeling or detachment, and the insulation efficiency decreased by 7.4%.
Salt spray corrosion resistance	After 30 tests, the coating showed no blistering, obvious deterioration, softening, or other phenomena, and the insulation efficiency decreased by 4.9%.
UV radiation resistance	After 60 tests, the coating showed no peeling, cracking, powdering, or other phenomena, and the insulation efficiency decreased by 8.6%.

2. Fire resistance: According to the requirements of the fire resistance time of the components, spray the corresponding coating thickness. (As shown in the table below)

Product name	Fire resistance time (h)	Coating thickness (mm)
Outdoor non-expandable steel structure fireproof coating GT-WSF-Ft1.50-HBCD	1.5	21
Outdoor non-expandable steel structure fireproof coating GT-WSF-Ft2.00-HBCD	2	26
Outdoor non-expandable steel structure fireproof coating GT-WSF-Ft2.50-HBCD	2.5	30
Outdoor non-expandable steel structure fireproof coating GT-WSF-Ft3.00-HBCD	3	35

WEI CHENG 伟诚防火科技
FIRE PREVENTION TECHNOLOGY

FINISHING TYPE
FIREPROOF COATING

饰面型防火涂料

■产品介绍

饰面型防火涂料是一种集装饰和防火功能为一体的新型涂料品种。防火涂料涂覆于可燃基材上时，平时可起到装饰作用，一旦火灾发生时，则可阻止火势蔓延，达到保护基材的目的，在火灾发生时因其涂层对可燃性基材起到防火保护、阻止火焰蔓延，涂覆于基材表面上的涂层在遇火时形成泡沫层，泡沫层不仅隔绝了氧气，而且因为其质地疏松而具有良好的隔热性能，可延滞热量传向被涂覆基材的速率；涂层膨胀发泡产生泡沫层的过程因为体积扩大而呈吸热反应，也消耗大量的热量，又有利于降低火灾现场的温度，从而可以阻止火焰的蔓延。该产品技术标准符合GB 12441-2018国家标准的技术指标。

■产品特点

饰面型防火涂料过火时形成均匀而致密的海绵状的炭质泡沫层，对可燃性基材有良好的保护作用。常用的主要成膜物质有聚丙稀酸树脂、改性氨基树脂、三聚氰胺、聚磷酸铵等。其特点是附着力强、耐冲击性高、耐水、防潮、防霉、防虫蛀、无脱落现象、质保期长等性能比较优异，适合于较潮湿的地区和相应的部位使用。涂层的光泽度较好，具有较好的装饰性、耐玷污性、优异的附着力、良好的成膜性能，硬度大、耐洗刷性好及较好的阻燃效果。

■应用范围

饰面型防火涂料适用于一般工业、养殖业及民用建筑、高层建筑、酒店、文化娱乐场所、古建筑的结构材料、纤维板、刨花板、玻璃钢板制品等易燃材料，以及水泥墙面等，起到防火保护作用。饰面型防火涂料成膜后涂层性能稳定，能使用各种气候条件，施工方便，可进行喷涂或滚涂，因此在全国各地均可使用。

■施工工艺

1、应在5℃以上，施工后24小时内避免雨淋。
2、涂刷工艺采用喷涂、或滚涂，涂刷均匀即可。
3、施工前必须对基层(被涂材料)进行清理，除去灰、油污浮漆等杂物。基层应达到自然干燥状态。
4、用电动手持搅拌器搅拌均匀后方可涂刷，搅拌时间不小于50秒。
5、请勿添加任何增加剂稀释使用。
6、耐火时间≥60min，涂层三遍以上达到厚度1.5mm，用量2.5-3.0kg/m²（含损耗）首层施工；0.3-0.5mm以内，等自然干燥后便可进行下一层施工，每遍涂刷0.5mm。涂刷面不得有漏涂。

■技术要求

理化性能：

检验项目	检验结果
细度um	80
干燥时间	表干5h，实干24h
附着力，级	2
柔韧性，mm	2
耐冲击性，cm	25
耐水性	经24h试验，涂膜不起皱，不脱落
碳化体积，cm^3	21.2

■Product introduction

Finished fire-retardant coating is a new type of coating that integrates decorative and fire-retardant functions. When fire-retardant coatings are applied to combustible substrates, they can usually play a decorative role. Once a fire occurs, they can prevent the fire from spreading and achieve the purpose of protecting the substrate. When a fire occurs, the coating will affect the combustible substrate. When it comes to fire protection and preventing the spread of flames, the coating on the surface of the substrate forms a foam layer when it encounters a fire. The foam layer not only insulates oxygen, but also has good thermal insulation properties due to its loose texture, which can delay heat transfer. The speed to the coated substrate; the process of expanding and foaming the coating to produce the foam layer is an endothermic reaction due to the expansion of the volume, which also consumes a large amount of heat, and helps to reduce the temperature of the fire site, thereby preventing the spread of flames. The technical standard of this product complies with the technical indicators of the GB 12441-2018 national standard.

■Product Features

Facing fire retardant coatings will form a uniform and dense sponge-like carbon foam layer when overfire, which has a good protective effect on combustible substrates. Commonly used main film-forming substances are polyacrylic acid resin, modified amino resin, melamine, ammonium polyphosphate and so on. It is characterized by strong adhesion, high impact resistance, water resistance, moisture resistance, mildew resistance, insect resistance, no shedding, and long warranty period. It is suitable for use in humid areas and corresponding parts. The coating has good gloss, good decoration, stain resistance, excellent adhesion, good film-forming performance, high hardness, good washing resistance and good flame retardant effect.

■Scope of application

Decorative fire-retardant coatings are suitable for general industry, aquaculture and civil buildings, high-rise buildings, hotels, cultural and entertainment venues, ancient building structural materials, fiberboard, particleboard, glass steel products and other flammable materials, as well as cement walls, etc. To the effect of fire protection. Finished fire-retardant coating has stable coating performance after film formation, can be used in various climatic conditions, is convenient for construction, and can be sprayed or rolled, so it can be used all over the country.

■Construction technology

1. It should be above 5℃ and avoid rain within 24 hours after construction.
2. The painting process is spraying or rolling, and the painting is even.
3. The base layer (coated material) must be cleaned before construction to remove dust, oil stains and floating paint. The base layer should reach a natural dry state.
4. Use an electric hand mixer to mix evenly before painting, and the mixing time is not less than 50 seconds.
5. Do not add any increasing agent to dilute it for use.
6. The fire resistance time is ≥60min, the coating reaches the thickness of 1.5mm more than three times, and the dosage is 2.5-3.0kg/m² (including loss) for the first layer construction; within 0.3-0.5mm, the next layer can be constructed after natural drying. Brush 0.5mm each time. There must be no omissions on the painted surface.

■Technical requirements

Physical and chemical properties:

Test items	test result
Fineness um	80
Drying time	Surface dry 5h, hard dry 24h
Adhesion, grade	2
Flexibility, mm	2
Impact resistance, cm	25
Water resistance	After 24h test, the coating film does not wrinkle or fall off
Carbonized volume, cm^3	21.2

WEI CHENG 伟诚防火科技
FIRE PREVENTION TECHNOLOGY

TUNNEL FIREPROOF COATING

隧道防火涂料

■产品介绍

我公司研制的隧道防火涂料是以无机防火绝缘材料为主要成分，此涂料涂层密度小、多孔、导热率低，有效地提高了混凝土结构的耐火极限，且有明显的吸音效果。在RABT升温条件下以及HC升温条件下能有效地阻隔火焰蔓延，为隧道提供了可靠的防火保护。主要适用于公路隧道、铁路隧道、石化工程、高层建筑、地下车库等密闭空间场所。

■应用范围

主要适用于公路隧道、铁路隧道的防火，还适用于石化工程、高层建筑、钢结构、地下车库的防火需要。

■施工工艺

1、隧道表面需经找平、止水、除油污、除浮尘，以达到混凝土结构表面清洁才能施工。
2、在施工现场先将涂料和水按比例混合，用电动搅拌器充分搅拌均匀，达到无结块后即可使用，约搅拌15-20分钟，施工搅拌时，以用多少搅拌多少为原则，不宜搅拌太多，否则造成因部分凝结降低粘合性。
3、涂层厚度达到24mm，耐火时间不低于2h，喷涂3-4遍。第一遍不能超过3mm，必须完全干燥后再喷涂第二遍，第二遍可喷涂6-7mm，干燥后再进行下一遍喷涂，直喷涂到相应的设计厚度为止。

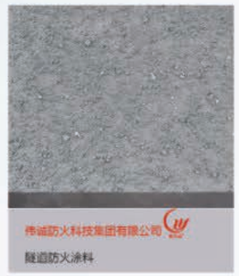
■技术要求

1.理化性能：

检验项目	检验结果
在容器中的状态	经搅拌后呈均匀稠厚液体，无结块
干燥时间(表干)/h	7
粘结强度/MPa	冻融前0.23，冻融后0.16
干密度/(kg/m³)	636
耐水性/h	720h试验后，涂层不开裂、起层、脱落，无轻微发胀和变色
耐酸性/h	360h试验后，涂层不开裂、起层、脱落，无轻微发胀和变色
耐碱性/h	360h试验后，涂层不开裂、起层、脱落，无轻微发胀和变色
耐湿热性/h	720h试验后，涂层不开裂、起层、脱落，无轻微发胀和变色
耐冻融循环试验/次	15次试验后，涂层不开裂、起层、脱落，无轻微发胀和变色
产烟毒性	ZA1级

2.耐火性能：根据构件耐火时间要求，喷涂相应的涂层厚度。（如下表所示）

产品名称	耐火时间（h）	涂层厚度（mm）
隧道防火涂料SH(CH-08)（普通升温）	2	24
隧道防火涂料SH(CH-06)(HC升温）	2	21
隧道防火涂料 SH(CH-06)-1（RABT升温）	3.33（升温1.5h+降温1.83h）	26



■Product introduction

The tunnel fireproof coating developed by our company is mainly composed of inorganic fireproof insulating materials. The coating has low density, porous and low thermal conductivity, which effectively improves the fire resistance limit of concrete structures and has obvious sound absorption effects. Under RABT heating conditions and HC heating conditions, it can effectively block the spread of flames and provide reliable fire protection for the tunnel. Mainly suitable for road tunnels, railway tunnels, petrochemical projects, high-rise buildings, underground garages and other confined spaces.

■Scope of application

It is mainly suitable for the fire protection of highway tunnels and railway tunnels, and also suitable for the fire protection needs of petrochemical projects, high-rise buildings, steel structures, and underground garages.

■Construction technology

1. The surface of the tunnel needs to be leveled, stop water, remove oil and dust, and clean the surface of the concrete structure before construction.
2. At the construction site, first mix the paint and water according to the proportion, and stir it evenly with an electric stirrer. It can be used after it reaches no agglomeration. The stirring is about 15-20 minutes. When the construction is stirred, the principle is to use as much as you want. It is not advisable to stir too much, otherwise the adhesion will be reduced due to partial condensation.
3. The thickness of the coating reaches 24mm, the fire resistance time is not less than 2h, and the spraying is 3-4 times. The first pass cannot exceed 3mm. It must be completely dried and then sprayed for the second time. The second pass can be sprayed for 6-7mm. After drying, the next spraying can be carried out until the corresponding design thickness is reached.

■Technical requirements

1. Physical and chemical properties:

Test items	test result
State in the container	After stirring, it becomes a uniform thick liquid without lumps
Drying time (surface dry)/h	7
Bond strength/MPa	0.23 before freezing and thawing, 0.16 after freezing and thawing
Dry density/(kg/m³)	636
Water resistance/h	After the 720h test, the coating does not crack, peel, or fall off, and there is no slight swelling or discoloration.
Acid resistance/h	After 360h test, the coating does not crack, peel off, or peel off, and there is no slight swelling and discoloration.
Alkali resistance/h	After 360h test, the coating does not crack, peel off, or peel off, and there is no slight swelling and discoloration.
Humidity and heat resistance/h	After the 720h test, the coating does not crack, peel, or fall off, and there is no slight swelling or discoloration.
Freeze-thaw cycle test/time	After 15 tests, the coating does not crack, peel off, or fall off, and there is no slight swelling or discoloration.
Toxicity of smoke production	ZA1 level

2.Fire resistance: According to the requirements of the fire resistance time of the components, spray the corresponding coating thickness. (As shown in the table below)

Product name	Fire resistance time (h)	Coating thickness (mm)
Tunnel fireproof coating SH (CH-08) (normal temperature rise)	2	24
Tunnel fireproof coating SH (CH-06) (HC heating up)	2	21
Tunnel fireproof coating SH(CH-06)-1 (RABT heating up)	3.33 (heating 1.5h + cooling 1.83h)	26

WEI CHENG 伟诚防火科技

FIRE PREVENTION TECHNOLOGY

GYPSUM-BASED FIREPROOF COATING

石膏基防火涂料

■产品介绍

石膏基防火涂料以石膏为主要基材，采用无机轻质隔热和纤维材料组成的粉料。相比水泥基防火涂料，石膏基涂料绿色环保，原材料低碳节能，材料轻、密度小。同时，粘接力强，变形能力好，耐火性能优异。成品不易开裂脱落，突破水泥基分层分道施工的瓶颈，可以实现一次喷涂施工成型。

■应用范围

适用于室内的钢柱、钢梁、托梁、桁架、网架、钢楼梯、压型钢板及预制混凝土构件等抗磨损或抗损坏钢构件。还适用于交通枢纽站、会展中心、楼梯井、轻生产区域和设施、设备间等。

■技术要求

1.理化性能：

检验项目	检验结果
粘接强度/Mpa	0.34
耐水性	24h试验后，涂层无起层、发泡、脱落等现象，隔热效率衰减量为29%。
耐冷热循环性	15次试验后，涂层无开裂、剥落、起泡等现象，隔热效率无衰减。

2.耐火性能：根据构件耐火时间要求，喷涂相应的涂层厚度。（如下表所示）

产品名称	耐火时间（h）	涂层厚度（mm）
室内非膨胀型钢结构防火涂料 GT-NSF-Fp2.00-HBCD(石膏基)	2	20
室内非膨胀型钢结构防火涂料 GT-NSF-Fp2.50-HBCD(石膏基)	2.5	25
室内非膨胀型钢结构防火涂料 GT-NSF-Fp3.00-HBCD(石膏基)	3	30
室内非膨胀型钢结构防火涂料 GT-NSF-Fp3.00-HBCD4.00(石膏基)	4	40

■运输与储存

1、运输：（石膏基）室内非膨胀型钢结构防火涂料不易燃、不易炸、无腐蚀、属非危险品，各类交通工具均可运输。
2、储存：5-35℃环境下储存，防雨淋、爆晒、潮湿。需在干燥、通风的室内储存。
3、本产品有效储存期为6个月。

■Product introduction

Gypsum-based fire-resistant coatings use gypsum as the main substrate and use powder composed of inorganic lightweight heat insulation and fiber materials. Compared with cement-based fireproof coatings, gypsum-based coatings are green and environmentally friendly, with low-carbon and energy-saving raw materials, light materials and low density. At the same time, it has strong adhesion, good deformability and excellent fire resistance. The finished product is not easy to crack and fall off, break through the bottleneck of the cement-based layered and divided construction, and can achieve one-time spraying construction.

■Scope of application

It is suitable for indoor steel columns, steel beams, joists, trusses, grids, steel stairs, profiled steel plates and precast concrete components and other anti-wear or damage-resistant steel components. It is also suitable for transportation hub stations, convention and exhibition centers, stairwells, light production areas and facilities, equipment rooms, etc.

■Technical requirements

1. Physical and chemical properties:

Test items	test result
Bonding strength/Mpa	0.34
Water resistance	After the 24h test, the coating showed no delamination, foaming, peeling, etc., and the attenuation of thermal insulation efficiency was 29%.
Resistance to cold and heat cycles	After 15 tests, the coating showed no cracking, peeling, blistering, or other phenomena, and the insulation efficiency did not decrease.

2. Fire resistance: According to the requirements of the fire resistance time of the components, spray the corresponding coating thickness. (As shown in the table below)

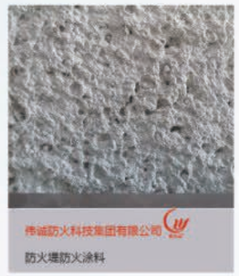
Product name	Fire resistance time (h)	Coating thickness (mm)
Indoor non-expandable steel structure fireproof coating GT-NSF-Fp2.00-HBCD (gypsum-based)	2	20
Indoor non-expandable steel structure fireproof coating GT-NSF-Fp2.50-HBCD (gypsum-based)	2.5	25
Indoor non-expandable steel structure fireproof coating GT-NSF-Fp3.00-HBCD (gypsum-based)	3	30
Indoor non-expandable steel structure fireproof coating GT-NSF-Fp3.00-HBCD4.00 (gypsum-based)	4	40

■Transportation and storage

1. Transportation: (gypsum-based) indoor non-expandable steel structure fireproof coating is non-flammable, non-explosive, non-corrosive, non-dangerous, and can be transported by all types of transportation.
2. Storage: Store at a temperature of 5-35℃, protected from rain, exposure and humidity. It should be stored in a dry and ventilated room.
3. The effective storage period of this product is 6 months.

WEI CHENG 伟诚防火科技
FIRE PREVENTION TECHNOLOGY

FIRE DIKE FIREPROOF COATING
防火堤防火涂料



■产品介绍

防火堤防火涂料是我公司根据GB 28375-2012国家标准研制的新型防火涂料，以无机绝热材料为主要成份。并有如下特点：

1、环保产品，对人体和环境无毒、无害。
2、附着力强，不开裂、不脱落。
3、施工方便，可以人工涂抹，又可机械喷涂。
4、涂层厚度薄、耐火性能好。
5、耐水耐潮湿性好。

■应用范围

该产品主要用于石油化工储罐区，油、气输送管道，船舶、码头、海洋设施等行业防火堤混凝土表面防护的特种涂料，具有防火阻燃的效果。

■施工工艺

1、基材处理。应对被保护体的基材进行彻底清理，使表面洁净，以免影响附着力。
2、底层喷涂。以一定比例配制并搅拌均匀后即成底料，用大口径专用喷枪进行喷涂，涂布量约为0.3-0.4kg/m²左右，第一层不要太厚，保持表面的粗糙效果，有利第二层结合。
3、待底涂层干燥后（高温干燥天气5-8h,一般在1d以上）即可抹涂第2层、第3层，每层厚度约在5-8mm之间，最大不超过10mm，最后用抹子抹平。用量按10mm厚度计算，耗量约7kg/m²。
4、涂料喷抹间隔宜控制在12-24h（20℃时），不宜过长或过短，根据气候情况可作适当调节。已加水混合好的湿料应在1h内用完。适宜施工环境温度≥5℃，相对湿度≤90%。
5、若另有要求时，待涂层实干后，再涂1-2道装饰面涂或其他功能性涂料。

■技术要求

在容器中的状态	无结块，搅拌后呈均匀状态
干密度（kg/m³）	≤700
干燥时间	表干≤24h
耐酸性	经360h实验后，涂层不开裂、起层、脱落。
耐水性	经720h实验后，涂层不开裂、起层、脱落。
耐湿热性	经720h实验后，涂层不开裂、起层、脱落。
耐冻融循环	经15次循环，涂层不开裂、起层、脱落。
产烟毒性	符合GB/T20285-2006规定烟毒性危险分级ZA1级

■运输与储存

1、涂料有效期为半年，一经开包就立即使用，受潮结块的涂料不得使用；净重：25公斤。
2、浆料搅拌稠度要适中，不可太稠或太稀，以适宜施工为准。
3、搅拌施工过程中散落，反弹的浆料可及时收回利用，被污染和超过2小时的涂料不能再用。
4、施工方法可根据涂层的设计厚度和施工条件可进行适当调整。

■Product introduction

The fire-resistant dike fire-resistant coating is a new type of fire-resistant coating developed by our company according to the GB 28375-2012 national standard, with inorganic thermal insulation materials as the main component. And has the following characteristics:

1. Environmental protection products, non-toxic and harmless to the human body and the environment.
2. Strong adhesion, no cracking or falling off.
3. Convenient construction, can be applied manually, and can be sprayed mechanically.
4. Thin coating thickness and good fire resistance.
5. Good water and humidity resistance.

■Scope of application

This product is mainly used as a special coating for the surface protection of fire dyke concrete in petrochemical storage tank farms, oil and gas pipelines, ships, docks, marine facilities and other industries, with fire and flame retardant effects.

■Construction technology

1. Substrate treatment. The substrate of the protected body should be thoroughly cleaned to make the surface clean so as not to affect the adhesion.
2. Bottom spraying. Prepare the primer in a certain proportion and stir evenly, and then spray it with a large-caliber special spray gun. The coating amount is about 0.3-0.4kg/m². The first layer should not be too thick to maintain the rough surface effect, which is beneficial to the second Layer combination.
3. After the primer layer is dry (5-8h in high temperature and dry weather, generally more than 1d), the second and third layers can be applied. The thickness of each layer is about 5-8mm, and the maximum is no more than 10mm. Finally Smooth it with a trowel. The dosage is calculated based on the thickness of 10mm, and the consumption is about 7kg/m².
4. The paint spraying interval should be controlled at 12-24h (at 20℃), and should not be too long or too short. It can be adjusted appropriately according to the climate. The wet material that has been mixed with water should be used up within 1h. Suitable construction environment temperature ≥5℃, relative humidity ≤90%.
5. If there are other requirements, apply 1-2 coats of decorative top coat or other functional paint after the coating is completely dry.

■Technical requirements

1. Physical and chemical properties:

State in the container	No lumps, uniform state after stirring
Dry density (kg/m³)	≤700
Drying time	Surface dry ≤24h
Acid resistance	After 360h experiment, the coating did not crack, delamination or fall off.
Water resistance	After 720h test, the coating did not crack, peel off, or fall off.
Humidity and heat resistance	After 720h test, the coating did not crack, peel off, or fall off.
Freeze-thaw cycle resistance	After 15 cycles, the coating did not crack, layer, or fall off.
Toxicity of smoke production	Comply with GB/T20285-2006 smoke toxicity hazard classification ZA1 level

■Transportation and storage

1. The coating is valid for half a year, and it should be used immediately after opening the package. The coating that is damp and agglomerated should not be used; Net weight: 25 kg.
2. The slurry mixing consistency should be moderate, not too thick or too thin, subject to suitable construction.
3. Scattered during the mixing construction process, the rebounded slurry can be recovered and used in time, and the contaminated and more than 2 hours paint can not be reused.
4. The construction method can be adjusted appropriately according to the design thickness and construction conditions of the coating.

PART OF THE PROJECT PERFORMANCE 部分工程业绩

防火涂料项目

安宁钛材年产六万吨能源级钛(合金)材料全产业链项目
安宁新能源磷铁项目钢结构厂房防火涂料
牧原集团饰面防火涂料采购项目
张家口(冬奥会)冰雪装备产业园
陕西延长中煤榆林能源化工有限公司
埃克森美孚惠州乙烯一期项目储运工程
广东寰球广业工程有限公司
中国石油广西石化炼化一体化转型升级项目
京东2023-京东智能产业园北京平谷项目
南宁产投跨境准备产业园一期一号厂房工程项目
辽宁威华钢结构工程有限公司精锐矿业钢结构项目
盘锦华锦精细化工项目
山西美锦华盛化工新材料有限公司项目
山西美锦煤化工有限公司
贵州美锦华宇新能源有限公司
江苏扬州通利冷藏集装箱喷涂项目
中铁十二局雄安高铁站项目
中石化天津分公司炼油质量升级防火涂料项目
中国石油天然气第一建设有限公司
中国石油天然气第一建设有限公司动力站工程
中化兴中石油运转（舟山）有限公司原油装船油气回收项目
雄安新区隧道KI快速路项目
江苏海力化工有限公司
鲁西化工集团有限公司
山东博汇集团
宁波轻烃利用防火涂料项目
150万吨/年芳烃加氢项目公用工程-火炬设施、燃料气回收设施
九江石化国五改造项目
首钢迁安钢铁公司
四川乐山奥体中心防火涂料项目
杭州一建工地马云别墅项目
新疆国信准东2*660MW煤电项目
新疆哈密煤化工尾气综合利用宣力发电项目
辽宁伊利乳液有限责任公司基础设施改造项目

总承包项目

中冶天工集团有限公司
中电投协鑫滨海2×1000MW发电工程主体工程#1#2标段
山东电建二公司枣庄十里泉发电厂
漳浦天福220KV变电站
云南省红河州建水县建水油泵站
大理州宾川县铁川桥水电站
迪庆州小中甸水利枢纽工程开发投资有限公司
神木县久业发电有限公司
山东电建二公司枣庄十里泉发电厂
廊坊联通公司数据中心项目
北京中国移动信息港项目
福州市国家安全局
福州市轨道交通二号线工程
华能罗源电厂
龙元建设集团股份有限公司
日照钢铁集团ESP工程
宁波市鄞州区洞桥镇生活垃圾焚烧热电厂
大唐滨州发电有限公司
长沙国金中心
63979部队
钱江世纪城人才专用房一期项目
内蒙古乌海市蒙西工业园中谷矿业项目部
盐源500KV变电站新建工程全站防火封堵系统
嘉陵江亭子口水利枢纽大坝电缆桥架及空洞防火封堵工程
上海和辉光电项目
淄博生活垃圾焚烧发电项目
杭州网讯硅谷科技园（2#-4#）工程
富平县神华热电厂
绍兴促进大厦智能化工程
日照新建4#ESP无头带钢生产线消防工程
绿城·理想之城E-1-4地块项目
成华奥园广场（大东展二期）3#地块消防工程

国际项目

赞比亚7.5MW光伏项目
吉尔吉斯斯坦楚河州100MW光伏项目
菲律宾Tanay光伏电站项目
菲律宾 Terra Solar项目
老挝北部500kV升压站防火材料
泰国罗勇钢结构防火涂料工程
印尼润建建设防火封堵项目
中建一局中国驻哈萨克斯坦使馆新建馆舍项目
阿勒泰地区哈萨克医院
陕西建工安装集团公司巴基斯坦卡拉奇BOP项目
白俄农工综合体自备电站项目
越南永新一期电力有限公司
越南永新燃煤电厂
伊朗伊拉克电厂
伊朗ARAK电厂
朗布什尔核电厂
越南沿海二期2
埃塞俄比亚悍港项目
乌干达坎桑尼亚国防部医院
阿拉伯防火封堵出口项目
伊拉克巴士拉光伏项目
马来西亚东钢ESSB二期/东马kimanis发电厂项目
孟加拉石化项目

防火封堵项目

国网宁夏防火封堵材料采购项目
国网河南防火封堵材料采购项目
国网上海防火封堵材料采购项目
国网新疆防火封堵材料采购项目
国网重庆防火封堵材料采购项目
国网湖北省电力公司物资采购防火封堵项目
国网成都防火封堵物资采购项目
国网宜昌宜都供电公司直供小区高层建筑电气火灾隐患整改项目
国网四川封堵材料采购项目
国网江苏防火封堵物资采购项目
国网西藏防火封堵框架协议采购项目
国网陕西防火封堵物资采购项目
国网山西省电力公司
国家电网郑州电力公司城市地下管廊项目
中国移动通信集团有限公司
内蒙古东部电力防火封堵材料采购项目
四川省乐山市大渡河上的枕头坝二级、沙坪一级水电站
四川白鹤滩水电站
中国水电五局浙江天台抽水蓄能电站
中核二三公司烟台防火封堵材料采购项目
中铁十六局集团电气化工程呼和浩特轨道交通项目
中铁八局郑州地铁二号线
武汉火神山防火封堵采购
深圳地铁防火封堵项目
二十三冶建设集团郑州轨道交通项目
乌鲁木齐轨道交通1号线
天津地铁六号线机电项目
青岛市红岛-胶南城际轨道交通工程弱电系统集成、采购及安装
南海石油工程设备有限公司
华晨宝马汽车有限公司研发中心扩建项目
新疆自治区昌吉州奇台县蒋军庙750KV变电站项目

PART OF THE 部分施工案例
CONSTRUCTION CASE