

Aqua Thermal UV CFR

Polyurethane liquid membrane for waterproofing and protection

用于防水与防护的聚氨酯 液态防水膜



DESCRIPTION 用中文常见写法有

UV CFR Single component high-quality polyurethane coating that cures by reacting with the humidity in the atmosphere to form a strong elastic film with excellent adhesion to different substrates. Can be applied by brush, roller or airless spray machine. The product is based on pure elastomeric hydrophobic polyurethane resin with special inorganic filler that provides the material with excellent weathering resistance properties. Aqua Thermal UV CFR is designed to have excellent adhesion on all common construction substrates such as dry concrete, fibrous cement, ceramic tiles, wood, and galvanized steel when used in conjunction with Aquathane Primer Range.

UV CFR 单组分高品质聚氨酯涂料，通过与空气中的湿气发生反应固化，形成具有高强度和优异弹性的涂膜，并能很好地附着于多种不同基材表面。可采用刷涂、滚涂或无气喷涂机施工。

本产品以纯弹性疏水性聚氨酯树脂为基础，并添加特殊无机填料，使材料具备出色的耐候性能。在配合 Aquathane 底漆系列使用时，Aqua Thermal UV CFR 可在各种常见建筑基材上实现优异的附着力，包括干燥混凝土、纤维水泥、陶瓷砖、木材及镀锌钢材。



ADVANTAGES 优势

- Excellent adhesion to all common primed substrates.
- Excellent water and UV resistance. The white colour reflects much of the solar energy reducing the internal temperature of the building.
- Excellent thermal resistance. Max service temperature 80oC.
- Cold Resistance: the film remains elastic down to minus 40oC.
- Excellent mechanical properties, high tensile and tear strength, high abrasion resistance.
- Good breathability characteristics which minimize the accumulation of humidity under the coat.
- Resistant to root penetration, making it ideal for use in planters and green roofs.
- 对所有常见已涂底漆的基材均具有优异的附着力。
- 优异的耐水性和耐紫外线性能。白色涂层可反射大量太阳能，有效降低建筑物内部温度。
- 出色的耐热性能，最高使用温度可达 80°C。
- 良好的耐低温性能，涂膜在低至 -40°C 的环境下仍能保持弹性。
- 卓越的机械性能，具有高拉伸强度和抗撕裂强度，并具备优异的耐磨性。
- 良好的透气性能，可最大限度减少涂层下方湿气的积聚。
- 具备抗植物根系穿透能力，非常适合用于花槽及绿色屋顶系统。

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LIMITATIONS 限制

- Only white and light grey colours can be used for exposed areas.
- Do not use on an unsound substrate.
- Not recommended for waterproofing of swimming pool surfaces in contact with chemically treated water.
- Since Aqua Thermal UV CFR cures with moisture, low humidity conditions will extend the tack-free time and recoat time.
- 仅可在外露区域使用白色和浅灰色。
- 不得在不牢固的基材上使用。
- 不建议用于与化学处理水接触的游泳池表面防水。
- 由于 Aqua Thermal UV CFR 依靠湿气固化，低湿度环境会延长表干时间和重涂间隔时间。

APPLICATIONS 适用范围

Waterproofing and protection of:

- Roofs.
- Light roofing made of metal or fibrous cement.
- Bathrooms.
- Gypsum and cement boards.
- Polyurethane insulation foams.
- RCC Wall
- 屋顶。
- 金属或纤维水泥轻型屋面。
- 浴室。
- 石膏板和水泥板。
- 聚氨酯保温泡沫。
- 钢筋混凝土墙体



STANDARDS 标准

Aqua Thermal UV CFR 符合 ASTM C836 标准 (详见技术性能表)

METHOD OF USE 使用方法 SURFACE

PREPARATION 表面处理

The surface should be clean, dry, sound and free from oil, grease and wax contamination. Cement laitance, loose particles, mould release agent or curing membranes must be removed. Fill surfaces irregularities with a suitable product. Maximum moisture content should not exceed 5%. New concrete structures need to dry for at least 28 days.

表面应保持清洁、干燥、牢固，并且无油脂、蜡或其他污染物。需去除水泥浮浆、松散颗粒、脱模剂或养护膜。表面不平整处应使用合适的材料进行修补。最大含水率不得超过 5%。新浇筑的混凝土结构需至少养护干燥 28 天。

PRIMING 底漆涂刷

It is recommended to prime all kinds of substrates using water-based epoxy primer Aqua Thermal Primer W or solvent-based polyurethane primer Aqua Thermal Primer PU.

Aqua Thermal Primer W is designed to significantly improve the adhesion between Aqua Thermal UV CFR and all kinds of non-porous substrates such as steel, glass tiles, and aluminium.

It will also stabilize and fortify weak and porous substrates before the application of Aqua Thermal UV CFR. Aqua Thermal Primer W should be applied using a brush or roller at a rate of 0.16 ltr/m² to achieve around 70 - 75 micron DFT.

Alternatively, Aqua Thermal PU Primer can also be used over porous and non-porous surfaces before the application of Aqua Thermal UV CFR.

Aqua Thermal Primer PU should be applied at a rate of 0.1 - 0.2 litre/m² (depending on the substrate porosity) to achieve 40 - 80 microns DFT. Leave the primer to cure for 24 - 48 hours before the application of Aqua Thermal UV CFR at normal conditions.

Note: At low ambient temperatures (10 to 15oC), it is important to leave Aqua Thermal Primer PU to cure for at least 48 hours before the application of Aqua Thermal UV CFR.

建议在所有类型的基材上先使用水性环氧底漆 Aqua Thermal Primer W 或溶剂型聚氨酯底漆 Aqua Thermal Primer PU 进行底漆处理。

Aqua Thermal Primer W 旨在显著提高 Aqua Thermal UV CFR 与各种非多孔基材 (如钢材、玻璃砖和铝材) 之间的附着力。

同时，在涂刷 Aqua Thermal UV CFR 之前，该底漆还能对强度较弱及多孔基材进行稳定和加固。Aqua Thermal Primer W 应采用刷涂或滚涂方式施工，推荐用量为 0.16 升/m²，以获得约 70-75 微米的干膜厚度 (DFT)。

另外，在涂刷 Aqua Thermal UV CFR 前，也可在多孔和非多孔基材表面使用 Aqua Thermal PU Primer。

Aqua Thermal Primer PU 的推荐用量为 0.1-0.2 升/m² (视基材孔隙率而定)，可形成 40-80 微米的干膜厚度。常温条件下，应让底漆固化 24-48 小时后，再进行 Aqua Thermal UV CFR 的施工。

注意：在较低环境温度 (10-15°C) 下，必须让 Aqua Thermal Primer PU 至少固化 48 小时后，方可进行 Aqua Thermal UV CFR 的施工。



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APPLICATION 施工方法

For spraying with airless spray machine, Aqua Thermal UV CFR can be diluted by 5 - 10% using Base Solvent PU (consult Base's technical department for further details).

For any mixing done on-site, low speed (300 rpm) mixer or electric drill should be used. Apply the material with roller or brush. Apply at least two coats. Do not leave more than 24 hours between coats.

Note: It is recommended to test the application of the primer and Aqua Thermal UV CFR on a small area on site before proceeding with the works to ensure that a smooth and homogeneous film is achieved without any surface defect.

使用无气喷涂机喷涂时，可用 *Base Solvent PU* 稀释 *Aqua Thermal UV CFR* 5-10%（具体操作请咨询 *Base* 技术部门）。

现场如需混合，应使用低速（约 300 rpm）搅拌机或电钻。材料可用滚筒或刷子施工。至少涂刷两遍，每遍之间间隔不得超过 24 小时。

注意：建议在施工前先在现场小面积试涂底漆和 *Aqua Thermal UV CFR*，以确保涂膜平整均匀，无表面缺陷。

CONSUMPTION 用量

First coat: 0.7 - 0.8 kg/m².

Second coat: 0.7 - 0.8 kg/m².

Total consumption: 1.4 - 1.6 kg/m² to give 1 mm dry film thickness.

第一遍涂刷：0.7-0.8 kg/m²。

第二遍涂刷：0.7-0.8 kg/m²。

总用量：1.4-1.6 kg/m²，可形成约 1 mm 的干膜厚度。

CLEANING 清洁

Clean all tools after finishing with paper towels and then wipe by using Base solvent PU. Do not try to clean rollers.

施工完成后，先用纸巾清理所有工具，然后再使用 *Base Solvent PU* 擦拭干净。滚筒不建议清洗。

PACKAGING 包装

Aqua Thermal UV CFR is available in 5 kg, 20 kg and 25 kg packs.

Aqua Thermal UV CFR 提供 20 公斤和 25 公斤包装规格。

STORAGE 储存

Aqua Thermal UV CFR has a shelf life of 12 months from date of manufacture if stored in the original unopened pails at temperatures between 5°C and 25°C. If these conditions are exceeded, contact Base Technical Department for advice.

Aqua Thermal UV CFR 在原装未开封桶内、温度保持在 5°C 至 25°C 的条件下，保质期为自生产日期起 12 个月。如储存条件超出此范围，请联系 *Base* 技术部门咨询。

CAUTIONS 注意事项

HEALTH AND SAFETY 健康与安全

Apply in well ventilated areas. Do not smoke. Do not apply near naked flames. In closed areas use force ventilation and carbon active masks. Keep in mind that solvents are heavier than air so vapour concentration is higher in air closer to floor. For further information, refer to the Material Safety Data Sheet.

请在通风良好的区域施工。严禁吸烟。不得在明火附近施工。在封闭空间施工时，应使用强制通风并佩戴活性炭口罩。需注意，溶剂比空气重，地面附近的空气中蒸气浓度更高。更多信息请参考材料安全数据表（MSDS）。

FIRE 防火

Aqua Thermal UV CFR contains volatile flammable solvents.

Aqua Thermal UV CFR 含有易挥发的可燃溶剂。

MORE FROM Base CONSTRUCTION PRODUCTS

更多 Base Construction Products 产品

A wide range of construction chemical products are manufactured by Base which include:

Base 生产各种建筑化学产品，主要包括：

- Concrete admixtures. 混凝土外加剂。
- Surface treatments 表面处理剂。
- Grouts and anchors. 灌浆材料与锚固剂。
- Concrete repair. 混凝土修补材料。
- Flooring systems. 地坪系统。
- Protective coatings. 防护涂层。
- Sealants. 密封剂。
- Waterproofing. 防水材料。
- Adhesives. 胶粘剂。
- Tile adhesives and grouts. 瓷砖胶及填缝材料。
- Building products. 建筑产品。
- Structural strengthening. 结构加固材料。
- Solar chip cool roof technology. 太阳能芯片凉屋顶技术

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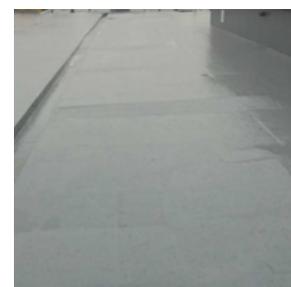
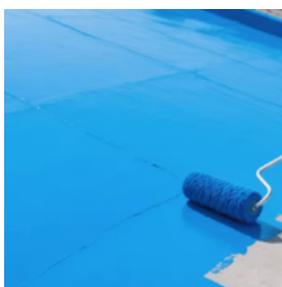
TECHNICAL PROPERTIES @ 250C, 55% RH:

Colour:	Specific gravity:	Variable
Skin over time:	Tack-free time:	1.35 ± 0.05
Re-coatable time:	Light pedestrian traffic time:	4 - 6 hr 6 - 8 hr
Final curing time:	Service temperature:	24 - 48 hr 7 days
Nonvolatile (solid) content:	ASTM D2369 Shore hardness @ 28 days:	-40 to 80oC ≥ 85% (pass)
ASTM D2240	Shore A	40 ± 5 (White & grey colour) 45 ± 5 (Black colour)
Shore 00		80 ± 5 (White & grey colour) (pass) 90 ± 5 (Black colour) (pass)
Adhesion in peel after water immersion:*	ASTM C794	≥ 35 N (pass)
Film thickness:	ASTM C836	Pass
Tensile strength:	ASTM D412	≥ 2.0 MPa @ 7 days
Bond strength:*	ASTM D4541 BS EN ISO 4624	≥ 0.8 MPa @ 7 days
Elongation:	ASTM D412	≥ 600% @ 7 days (White & grey colour) ≥ 400% @ 7 days (Black colour)

TECHNICAL PROPERTIES @ 250C, 55% RH:

Crack bridging ASTM C 1305	Pass @ 23oC (3.2 mm)
Tear strength: ASTM D624	≥ 10 kN/m
QUV accelerated weathering: ISO 4582	Pass @ 2000 hr
Hydrolysis (8% KOH, 15 days @ 50oC):	Pass
Resistance to roots: PD CEN/TS 14416:2014	No penetration
Water permeability: (5 bars): DIN 1048	0 mm penetration

* When primed with Aqua Thermal UV CFR.



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