COLD MELT®

PRODUCT DATASHEET

v3.1 | NOVEMBER 2024

PRODUCT DETAILS

Product name	**Cold Melt®**
Product type	Protected roof/podium liquid waterproofing system

PRODUCT DESCRIPTION

Cold Melt® is a cold applied, two-part elastomeric polyurethane, waterproofing membrane providing seamless leak protection.

APPLICATION

Cold Melt® is appropriate for the following roof types:

- Inverted
- Podium decks
- Green roofs
- Balconies and terraces
- Blue Roof

Cold Melt® can be applied to the following substrates:

- Concrete
- Timber
- Metal
- Asphalt

INSTALLATION

Substrate preparation

- Any defective or decayed areas of the substrate or insulation should be cut out, repaired, and reinstated to provide a solid base
- All loose and friable material must be removed by mechanical means where necessary
- Oil, dust, and debris should be removed by brush and vacuum
- Surfaces should be sound, clean, dry, free from defects, visible dampness, fungal growth, and corrosion
- Adhesion tests may be required to confirm substrate suitability before installation
- All details should be primed prior to installation. Contact Proteus for specific information on priming
- Surfaces with hygrometer readings up to **98% RH** in accordance with **BS 8203** can be accommodated

Substrate quality

- There should not be any deflections in the substrate to avoid the risk of ponding water
- There should be no bond breaking contamination or deformation and no smooth shiny surface patina
- The minimum finished fall must be at least **1:80** in accordance with **BS 6229**, this is to guarantee a proper rainwater runoff

Treatment of cracks and joints

- Cracks and splits greater than **0.5mm** should be neatly cut out and repaid using an appropriate repair material
- Use appropriate methods such as surface bandaging, filling, and transferring cracks into joints as specified in **EN 1504-10**

Preparation of product

- Mix the resin component before adding the hardener component
- Add hardener, fully submerge mixing paddle, mix on low speed **(300-400 rpm)** for a minimum **2 minutes**
- Scrape the vessel several times during mixing to achieve a homogeneous mixture
- Decant mixture into a second mixing vessel and mix for a further minute
- Part mixing of pre proportioned units is not recommended

Installation methods/tools

- Apply **Pro-Prime® SA** by roller or brush, refill roller if cobwebbing appears and avoid puddling
- Test by pressing a dry object into the primer and remove, if there is no transfer, primer is ready
- Avoid walking over primed areas where is practically possible
- Once primed, apply Proteus Pro-Vapour Control/Carrier Membrane SA within 2 - 3 hours
- Apply **Cold Melt®** to all prepared surfaces using a trowel, spatula, or rubber lipped squeegee
- Use a looped or spiked roller with medium pressure to reduce trowel/squeegee marks
- Allow to cure
- For exposed surfaces **Cold Melt® UV Top** should be applied using a squeegee and roller
- If the roof is to be insulated, contact Proteus Waterproofing for further guidance

Product	Coverage rate		Number of coats	Drying time	Fully cured
Proteus Pro-Prime® SA	0.2	L/m²	1	30 – 60 mins	Dry to touch
Proteus Cold Melt® (horizontal areas)	2.5	kg/m²	1	6 – 36 hours	8 – 24 hours
Proteus Cold Melt® (vertical areas)	1.25	kg/m²	2	6 – 36 hours	8 – 24 hours
Proteus Cold Melt® UV Top	0.75	kg/m²	1	24 hours	7 days
Drying times are dependent on surface porosity, thickness, and temperature					

Detail work

- For simple details, up-stands and change of direction, **Pro-Prime® SA** and **Pro-Vapour Control/Carrier Membrane SA** should be applied to substrate before application of **Cold Melt®**
- For complex details, **Cold Melt®** pitch pocket detail is used

Wet electronic leak test

- A wet electronic leak test is required for all inverted/buried systems, prior to the waterproofing membrane being covered

Cleaning of tools

- Tools and equipment must be cleaned immediately after use with **Pro-Tool Surface Cleaner**

CERTIFICATION

Type	Name	Reference
BBA	**Cold Melt®**	16/5311

TECHNICAL INFORMATION

Characteristic	Value	Unit
Abrasion resistance	< 3000	mg
Permeability to CO_2	S_D > 50 m	-
Permeability to water vapour	Class III	-
Capillary absorption and permeability to water	w < 0,1	kg/(m²*$h^{0.5}$)
Adhesion after thermal compatibility	≥ 1.5	N/mm²
Resistance to thermal shock	≥ 1.5	N/mm²
Chemical resistance	Pass	-
Crack bridging ability	B 4.2 (-10°C)	-
Impact resistance	Class III	-
Adhesion strength by pull-off test	≥ 1.5	N/mm²
Reaction to fire	B_{FL} – s1	-
Slip/skid resistance	Class III	-
Behaviour after artificial weathering	Pass	-

SIZE, FINISH AND COLOUR

Product Code	Product Type	Diameter (cm)	Height (cm)	Colour	Weight *(kg)*
CMPROT05 - Product code for purchase of resin and hardener totalling **5kg**					
CMPROT05R	Resin	22	20.5	Black	3.96
CMPROT05H	Hardener	5.5	20	Brown	1.04
CMPROT10 - Product code for purchase of resin and hardener totalling **10kg**					
CMPROT10R	Resin	28.5	22	Black	7.92
CMPROT10H	Hardener	10	26.5	Brown	2.08
CMPROT15 - Product code for purchase of resin and hardener totalling **15kg**					
CMPROT15R	Resin	31.5	35.5	Black	11.88
CMPROT15H	Hardener	10	26.5	Brown	3.12

SHELF LIFE AND HANDLING

- Product shelf life is **12 months** when un-opened packs are stored off the ground in a covered dry store
- Storage area temperature should be between **5°C** and **30°C** and out of direct sunlight
- Protect from frost

MATERIAL

Cold Melt® is a cold applied, two-part elastomeric polyurethane, liquid waterproofing membrane.

PACKAGING

Cold Melt® is supplied in plastic containers.

LIMITATIONS OF USE

- Application should not be carried out if rain is expected
- The substrate and ambient temperatures should be within **5°C** (min.) to **30°C** in accordance with **EN 1504-10** and the substrate must be at least **3°C** above the dew point
- The base should have a relative humidity of no more than **75%** when measured by the test method described in **BS 8203**
- Ambient relative humidity must be no more than **80%**

CHEMICAL PROPERTIES, SAFETY GUIDANCE AND DISPOSAL

Please refer to **Cold Melt®** Material Safety Datasheet.

GUARANTEE

Defects arising from lack of maintenance or abnormal use may fall outside of the cover of the Proteus Waterproofing guarantee.

MAINTENANCE

A flat roof should be inspected at least twice yearly; in autumn to ensure it is clear of leaves, dirt and debris, outlets are not blocked, and the roof is free draining; in spring to discover and rectify any damage due to weather. Green, blue, and other specialist roofs should be inspected in accordance with the designer's original inspection plan.

Inspections should include the following elements

- Examination of ceilings for signs of water penetration or condensation followed by examination of external walls, eaves, and soffits for signs of movement
- The roof should then be inspected for any signs of damage or displacement of the individual layers of construction including, as appropriate, the waterproofing layer, the thermal insulation, the WFRL, the surface protection and flashings
- The location and extent of any build-up of leaves, moss, plants, or debris should be recorded
- The mountings of roof top installations such as safety barriers, fall arrest posts, harness bolts and satellite dishes should be examined to ensure their attachment remains waterproof

Maintenance of a flat roof should involve

- Removal of all accumulated leaves, dirt, and debris
- Clearance of rainwater outlets, downpipes, and gutters
- Replacement of any surface protection which has been dislodged or removed and cleaning of vents to the underside of a cold roof

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Repair / Renewal

Should inspection discover the need for repair or replacement of any part of the roof, the work should be undertaken as soon as possible but only after appraisal of the original roof design and assessment of the need for modification or improvement. Repairs should be undertaken using materials and techniques compatible with the original work and, if still under an original guarantee, by the original installer. If it is decided to renew part or all of a flat roof, a full assessment of the design should first be undertaken in accordance with Clauses 4 to 6 of **BS 6229**. All works of inspection, repair and renewal should be recorded in the owner's building information manual.

GUIDELINES AND STANDARDS

Cold Melt® has been tested and certified by the BBA for use as a waterproofing layer on inverted roofs and protected flat roofs, including zero falls roofs.

It is the responsibility of the Contractor to thoroughly familiarise themselves with all relevant Codes of Practice and Building Regulations to the works or referred in the specification.

Proteus Waterproofing take no responsibility for misinterpretation or lack of knowledge for third parties.

The works shall be carried out in accordance with the requirements of:

- **BS 6229** Flat roofs with continuously supported flexible waterproof coverings - Code of practice
- **BS 8217** Reinforced bitumen membranes for roofing - Code of practice
- **BS 8000-0** Workmanship on construction sites - Introduction and general principles
- **BS 8000-4** Workmanship on building sites - Code of practice for waterproofing
- **LRWA** Design Guide for Specifiers
- **S2T** Safe to Torch
- **GRO** Code of Best Practice