DETAILS TREATMENT WITH ALCHIMICA'S SOLUTIONS

PART 1: PU-BASED SEALANTS

ALCHIMICA® BUILDING CHEMICALS

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ALCHIMICA'S ADVANCED SEALING SOLUTIONS: COMPREHENSIVE TREATMENT AND PROTECTION OF DETAILS

Choosing ALCHIMICA for construction details treatment offers significant benefits due to its specialized product ranges like HYPERSEAL® and HYGROSMART®. These products are tailored to face specific vulnerabilities in structural areas, providing advanced sealing, waterproofing, and reinforcement. They ensure structural integrity and durability, adapting to movements and environmental shifts without losing performance. Alchimica's commitment to innovation and quality makes it a reliable option for enhancing building stability and reducing maintenance needs, effectively serving both as part of complementary systems and as standalone solutions for detailed construction works.

ALCHIMICA's approach to treatment spans the full spectrum of construction challenges, meticulously addressing everything from the smallest crack to the most substantial repairs. Our products, designed with precision and innovation, ensure detailed and effective solutions for every scale of need. For instance, our HYPERSEAL® range of sealants provides flexible, durable protection tailored to minute joint movements and fissures, preventing water ingress and structural damage even in the most minute openings. Conversely, the HYGROSMART® line offers robust cementitious and epoxy-based formulations capable of reinforcing and waterproofing large structural elements under severe stress or in harsh environments. This comprehensive attention to detail ensures that Alchimica's solutions not only meet but exceed the rigorous demands of modern construction, providing long-lasting stability and integrity from the ground up.

POLYURETHANE-BASED SEALANTS AND WATERPROOFING SYSTEMS

The HYPERSEAL® range by ALCHIMICA features advanced polyurethane sealants tailored for various construction purposes, including both simple joint sealing and complex waterproofing projects. The product lineup includes one-component, low modulus sealants ideal for construction and expansion joints, as well as high modulus, fast-curing sealants suited for demanding environments like industrial flooring. Additionally, two-component pourable sealant is available for heavy-duty applications such as airport runways and pavement joints. These sealants are known for their flexibility, accommodating significant joint movements and minimizing the risk of cracks and breaches. They form a durable, elastic seal that adheres strongly to substrates like concrete, metal, and glass, ensuring long-term performance with minimal maintenance.

CEMENTITIOUS PRODUCTS FOR REPAIR AND REINFORCEMENT

ALCHIMICA's HYGROSMART® range offers a comprehensive selection of cementitious repair and waterproofing solutions beyond their sealant products. This range includes fiber-reinforced waterproofing mortars specifically designed for protecting water-exposed surfaces such as swimming pools, balconies, and water tanks. Additionally, it features low viscosity epoxy resins and thixotropic epoxy pastes ideal for sealing cavities and cracks in critical structural elements like pillars, beams, and columns. The line also includes polymer-modified cementitious mortars formulated for application on reinforcement steel bars to prevent corrosion and extend the lifespan of structural elements. Moreover, the HYGROSMART® range contains innovative one-component powders capable of stopping leaks, even under negative pressure, making them well-suited for subterranean applications like tunnels and water tanks. This comprehensive approach ensures long-term durability and structural integrity in various construction settings.

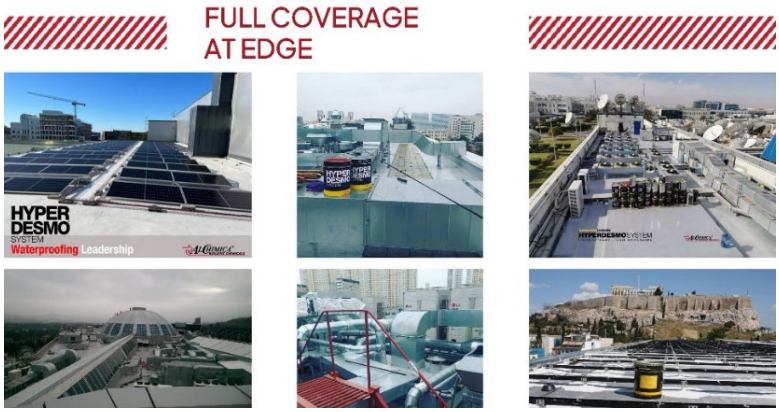
Alchimica's product range is designed to function both as standalone treatments and as integral components of a comprehensive system, enhancing building longevity and structural integrity. Their integrated solutions, such as HYPERSEAL® polyurethane sealants and HYGROSMART® cementitious repair systems, can be used individually or in tandem to address specific construction and maintenance issues like sealing joints, repairing cracks, and waterproofing surfaces. When combined, these products synergistically enhance each other's protective capabilities, offering a multi-layered defense against water ingress and structural decay. This not only ensures seamless protection but also extends the functional life of structures, allowing for tailored solutions that meet the specific needs and conditions of each project. Alchimica's approach enables buildings to be not only constructed to endure but also fortified against future challenges, thus promoting sustainability, and reducing the need for frequent maintenance. By choosing Alchimica's sealing solutions, construction professionals can ensure that every aspect of their project, from the foundation to the roof, is protected against environmental factors and structural stresses.

ALCHIMICA'S POLYURETHANE LIQUID MEMBRANES

To ensure effective waterproofing, it is crucial to select PU membranes that meet specific criteria: impermeability, flexibility, durability, breathability, and resistance to environmental factors such as UV radiation, heat, humidity, and chemical exposure.

ALCHIMICA is a leader in the waterproofing industry, pioneering the use of liquid applied polyurethane membranes. With a commitment to high performance and durability, ALCHIMICA's products excel in applications where seamless systems are paramount, whether for structural integrity or aesthetic appeal. These membranes offer decisive advantages, particularly in complex scenarios like geometrically complicated connections with ventilation outlets or upturns.

Throughout its history, ALCHIMICA has continuously expanded its range of polyurethane liquid membranes to provide versatile installation alternatives and long-lasting solutions. From one and two-component polyurethane liquid membranes to bitumen-extended polyurethanes, water-based liquid polyurethane membranes, and advanced technology polyurethane dispersion (PUD) products, each solution is meticulously designed to address a wide array of waterproofing challenges with optimal performance and durability.



ALCHIMICA's liquid membranes offer durability upon application, elasticity to withstand various stresses and traffic, and resistance to chemicals, and ponding water. These properties meet stringent technical specifications, making them suitable for a diverse range of applications. The core objective of ALCHIMICA is to develop waterproofing systems that are competitive, simple to apply, and accessible to all professionals. By prioritizing ease of application and reliability, ALCHIMICA empowers users to achieve effective waterproofing solutions efficiently and effectively. The membranes are seamless, durable, and flexible and provide superior waterproofing performance, waterproof and moisture permeable, preventing water penetration, allowing moisture to escape, and reducing the risk of degradation and failure over time. With mechanical, thermal, and chemical resistance properties and breathability, ALCHIMICA's PU membranes ensure the longevity and efficiency of waterproofing systems.

ALCHIMICA's commitment to innovation and excellence has revolutionized waterproofing technologies globally. With a comprehensive range of polyurethane liquid membranes tailored to meet the demands of modern construction projects, ALCHIMICA remains the premier choice for effective, long-lasting waterproofing solutions.

PREPARATION

For successful and safe waterproofing applications specific tools and equipment are required. Each application might have different requirements.

Minimum application equipment includes protective clothing, a 1KW slow-speed drill, and a brush, roller, or airless spray machine for mixing and application. Before installing the system, the weather working conditions should be considered in order to ensure the correct and safe application of the system. Overall, avoid extreme cold or hot surface conditions. In case of high heat, contractors may apply the products either in the morning or afternoon. The application temperature range is 5°C to 35°C, with no dew point conditions, a maximum 95% relative humidity, and substrate temperature above 3°C. Store materials cool, tools dry, and avoid application during hot hours.

Substrate: To ensure successful application, substrate preparation is crucial. New concrete should be at least 28 days old, clean, dry, and free of substances that could reduce adhesion. Dust removal is recommended, and Alchimica's primer application can be done over damp concrete.

In case of doubtful conditions, please contact ALCHIMICA's technical assistance for instructions.

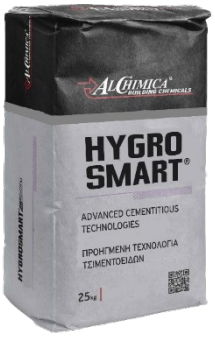
REPAIR AND LEVELING MORTARS

REPAIRING

In case any spots on the concrete surface require repairs, filling, and/or smoothing such as large cracks, cavities, or surface levelling, ALCHIMICA's HYGROSMART® range of cementitious mortars may be used:

1. **HYGROSMART®-FIX&FINISH** (Single component, rapid-setting shrinkage-compensated, thixotropic, fiber-reinforced, cementitious mortar applied in a single layer from 3 to 40 mm thick, for repairing and smoothing concrete, certified according to EN1504-03, Type R4 CLASS III), or
2. **HYGROSMART®-BUILDING-45-THIXO** (Single-component, shrinkage-compensated, thixotropic, fiber-reinforced cementitious repair mortar, certified according to EN1504-03, Type R4 CLASS III), or
3. **HYGROSMART®-BUILDING-F** (Single-component, reinforced, quick-setting, cementitious repair mortar with excellent adhesion and mechanical properties, easy application in horizontal/vertical substrates. Long pot life allows the application of thick coats without cracking. CE Certified as Class R3 class III repair mortar according to EN 1504-03.
4. **HYGROSMART®-MAK-FLOW** (Single-component, highly flowable and shrinkage compensated mortar for structural repairs and anchoring, certified according to EN 1504-6: 2006 (Anchoring cementitious mortar for strengthening concrete by installing reinforcing steel) and EN 1504-3: 2005, Class R4(Hydraulic mortar (R4-CC) for structural repair of concrete in building and civil engineering works).

HYGRO SMART® SYSTEM Advanced Cementitious Technologies



LEVELING

In cases where the concrete needs to be levelled or slopes need to be created prior to the installation of the waterproofing membrane, the following products from the HYGROSMART® range can be used, depending on the requirements and desired outcome.

1. **HYGROSMART®-MAK FLOW** (as described above)

2. **HYGROSMART® -DUR CEM 3K** (Three-component, epoxy modified mortar, waterborne, solvent-free, low viscosity, self-levelling, quick curing, zero VOC. Primer for flooring and waterproofing applications, floor-levelling compound. Will effectively seal the substrate as a solution to the problems arising in waterproofing applications on porous and/or humid concrete. The material is available as SELF LEVELLING (**HYGROSMART®-DUR CEM 3K SL**) or THIXOTROPIC

(**HYGROSMART®-DUR CEM 3K THIXO**).

PRIMER SELECTION

After checking the weather conditions and having completed the substrate preparation along with any repairs that might be needed, you can start the waterproofing system's build-up with the selection of a suitable primer. ALCHIMICA's primer range provides unique properties for different substrates.

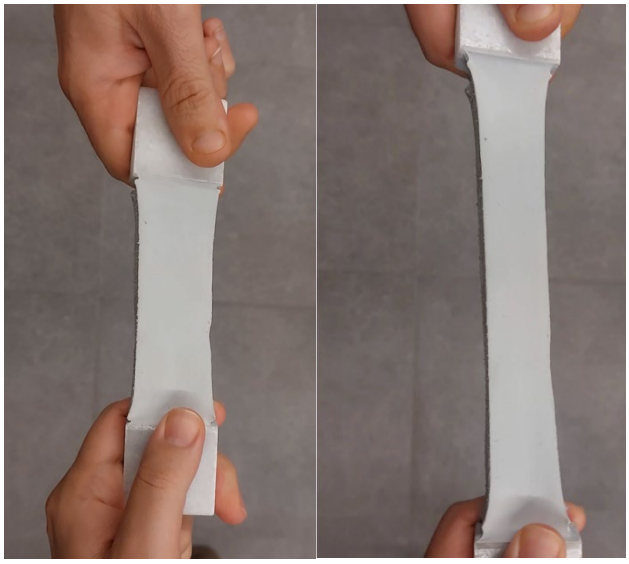
SUBSTRATE AND CONDITIONS	CONCRETE	HUMID CONCRETE	GYPSUM	METAL STEEL	POROUS CERAMIC TILES	GLASS / GLAZY TILES	PVC MEMBRANES	TPO MEMBRANES	BITUMEN MEMBRANES	LOW TEMPERATURE APPLICATION	VAPOR BARRIER	NEGATIVE PRESSURE / RISING HUMIDITY (1atm)
PU PRIMERS												
PRIMER-PU	X	-	-	X	-	-	-	-	-	-	-	-
MICROPRIMER-PU	X	-	-	X	X	-	-	-	-	-	-	-
MICROSEALER-PU	X	X	X	X	X	-	-	-	-	-	-	-
MICROSEALER-50	X	X	X	X	X	-	-	-	-	-	-	-
GEODESMO 50	X	X	-	X	-	-	-	-	-	X	-	-
UNIVERSAL PRIMER-2K 4060	X	X	-	-	-	-	-	-	X	X	-	-
PRIMER T	-	-	-	-	-	X	-	-	-	-	-	-
PRIMER W	-	-	-	-	-	X	-	-	-	-	-	-
PRIMER TPO/FPO	-	-	-	-	-	-	-	X	-	-	-	-
PRIMER PVC	-	-	-	-	-	-	X	-	-	-	-	-
WATER-BASED PRIMERS												
AQUADUR	X	X	X	-	-	-	-	-	-	-	X	X
AQUASMART-DUR	X	X	X	-	-	-	-	-	-	-	X	X
AQUASMART-PRIMER PU-2K	X	X	-	-	-	-	-	-	-	X	-	-

ALCHIMICA's primers are designed to secure your waterproofing application in every substrate by strengthening the substrate, stabilizing, and sealing it, offering remarkable adhesion with their respective main membranes and sealants.

SIMPLIFIED EXPLANATION OF SEALANT MODULUS

A sealant is a material used to seal joints or gaps to prevent the penetration of air, water, dust, or other substances. Sealants are commonly used in construction, automotive, and various other applications where creating a barrier against environmental elements is essential.

SEALANT MODULUS

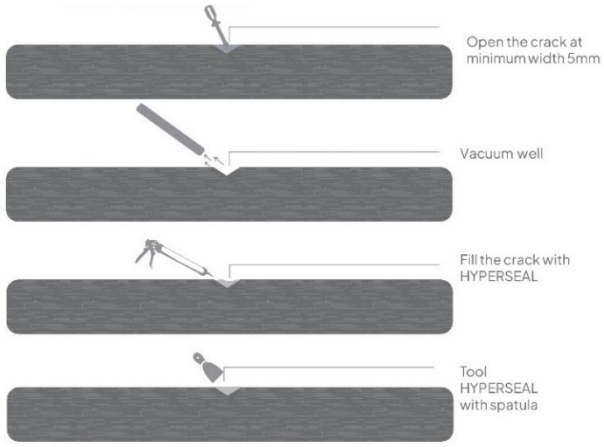


The modulus of elasticity or simply modulus in the context of sealants is a measure of a material's ability to deform elastically under stress. In the context of sealants, modulus is an important property that influences the performance of the sealant in various applications.

- Low Modulus Sealants: These are more flexible and are suitable for joints that experience significant movement or where flexibility is critical. They are commonly used in construction joints and expansion joints.
- Medium Modulus Sealants: These strike a balance between flexibility and stiffness. They are versatile and can be used in a variety of applications where moderate movement is expected.
- High Modulus Sealants: These are stiffer and less flexible, often used in applications where minimal movement is anticipated. They may be suitable for structural glazing or other situations where rigidity is important.

SEALING SOLUTIONS

POLYURETHANE BASED:



HYPERSEAL®-EXPERT-150 is a low-modulus expansion and construction joints PU sealant designed to ensure a bubble-free cure even in high temperature and humidity conditions. It exhibits excellent thixotropy, making it suitable for large expansion joints. The ratio width to depth should be 2:1 subject to a minimum depth of 10mm. It cures by reacting with atmospheric humidity, producing a joint sealant with a 50% joint movement accommodation factor, elongation >700% (ASTM D412 / EN-ISO-527-3), and excellent adhesion to a variety of substrates (Adhesion to concrete >20 kg/cm² (>2 N/mm²) ASTM D4541) with or without the use of special primers. The sealant's extrusion rate and tooling remain consistent across various temperature and humidity conditions. HYPERSEAL®-EXPERT-150 is CE certified according to EN 15651-1:2012 (Sealants for Facades) and 15651-4:2012 (Sealants for Floor Joints with Foot traffic). HYPERSEAL®-EXPERT-150 is a highly flexible PU sealant, with elastic recovery of >70% (EN ISO 7389) allowing for the movement and expansion of structure components, preventing cracks, and ensuring a lasting seal. It adheres to various substrates, making it durable and able to withstand harsh environmental conditions and heavy traffic loads. As a PU sealant, it is also chemically resistant, protecting the structure from corrosion. Because of its excellent chemical and hydrolysis resistance, it is widely used for sealing joints in swimming pools and chemically treated water environments. HYPERSEAL®-EXPERT-150 provides excellent waterproofing, preventing moisture ingress, and has high elasticity, allowing for flexibility and elasticity. It does not shrink as it cures, ensuring no gaps or openings in the sealed joint. Its excellent heat resistance makes it suitable for application where exposure to temperatures >60°C takes place and its resistance to cold allows the sealant to remain

elastic even down to -40°C (service temperature range -40 to +80°C). It has tack free time (@ 77°F (25°C) & 55% RH) of 2.5-3.5 hours and a cure rate of 2-3 mm/day, low VOC content, and remains resistant and unaffected by microorganisms, fungi, and algae growth, making it the most versatile PU sealant, usable in a variety of applications.

HYPERSEAL®-EXPERT-150 is available in various colors and compatible with a wide range of construction materials in general. Can be easily applied using standard caulking or gun techniques.

WATER BASED POLYURETHANE:

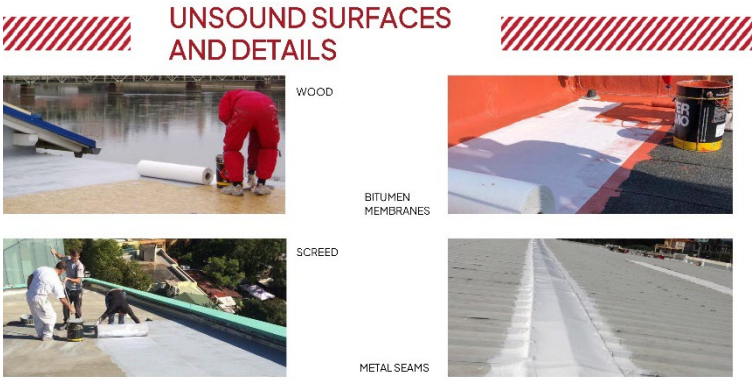
HYPERFIX-PUD-FC is a water-based polyurethane sealant designed for both internal and external use. It is based on ALCHIMICA's innovative water-based polyurethane dispersion technology and is suitable for connecting joints between stairs, walls, ceilings, skirtings, windowsills, wood, and metal window frames, as well as concrete and brickwork. It can accommodate joint movement up to 12.5% and retains its elasticity even at temperatures of -15°C.

This sealant is ideal for filling gaps and cracks before using ALCHIMICA's water-based products and systems, such as HYPERDESMO® AQUA as a protective waterproofing coat or wall paint. It is a fast drying sealant (dry to touch in 20 min) and It offers high elongation (>300%, ASTM D412 / EN-ISO-527-3), tensile strength at break (@ 23 °C, 0.4 N/mm², ASTM D412 / EN-ISO-527-3) and high movement accommodation with hardness of 30 Shore A (ASTM D2240 / DIN 53505 / ISO R868). It is paintable with water-based and synthetic paints and provides perfect adhesion without the need for a primer. It is easy to apply and clean, and highly resistant to water immersion.

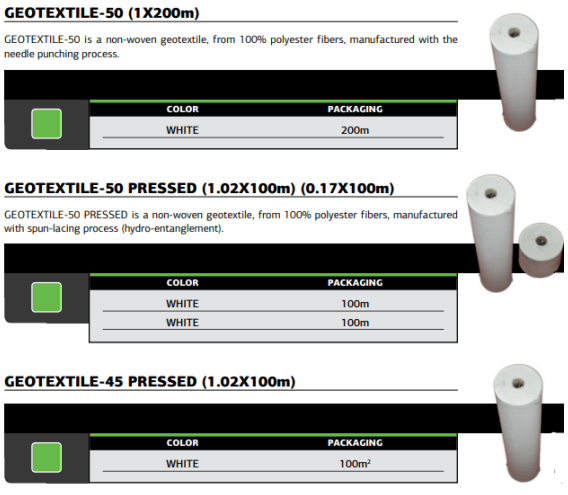
For application, substrates must be solid, clean, dry, and free of grease and dust. Porous substrates, such as gypsum, open-pore concrete, and limestone, should be primed using HYPERFIX-PUD-FC diluted with water at a 2/1 ratio. Can be easily applied using standard caulking or gun techniques.

REINFORCEMENT OF WATERPROOFING MEMBRANES WITH GEOTEXTILE

Geotextile reinforcement is a crucial component in the construction industry, providing long-term protective solutions for waterproofing systems. These fabric-made sheets are used in various applications, including drainage and construction projects. They are divided into two categories: non-woven and woven geotextiles. Woven geotextiles have high load capacity and tensile strength, making them ideal for stabilization and reinforcement applications. Non-woven geotextiles, on the other hand, offer durability and ease of application benefits. Nonwoven geotextiles are manufactured by binding short and long fibers together through needle punching or other alternative methods. The term "pressed" in relation to non-woven geotextiles usually refers to the process of needle punching. In this context, "pressed" refers to a non-woven geotextile that has undergone the needle punching process, while "unpressed" usually refers to a non-woven geotextile before this process. The needle-punching process can improve the strength of the geotextile. For cold climatic conditions, it is recommended to choose the PRESSED geotextile.



Geotextiles protect and separate membranes from structures due to their higher pre-break elongation capacity than other materials like glass mesh or fiberglass mesh. They can follow the movement of elastomeric waterproofing materials, achieving reinforcement and long-term durability. However, unsound substrates often have high movement or large cracks, which can cause problems on unarmed waterproofing membranes. Geotextiles can prevent future cracks by sealing and protecting details in areas like roofs, flashing, and joints, and repairing existing cracks and gaps. They are often made of Polyester, which is a strong



fiber with excellent oxidation resistance and good mechanical stability. It offers strong oxidation or mildew resistance because it stays resilient when wet. It is used as a reinforcement material embedded between the waterproofing coats, so it does not have direct exposure to the conditions. in this case, any resistance concerns those materials that are in direct contact with the environment and conditions. The HYPERDESMO® System remains elastic at -40°C. Another very important advantage of our materials that are in the technology of liquid polyurethane waterproofing membranes is the fact that they can easily be reinforced with geotextile if needed.

ALCHIMICA offers a high tensile strength range of non-woven geotextiles made of



METHOD STATEMENT

DETAILS TREATMENT WITH ALCHIMICA'S SOLUTIONS.

ALCHIMICA offers complete waterproofing solutions along with strong and reliable joint sealing, being a leading producer of both one and two component HYPERSEAL® polyurethane sealants. Through our experience and strong innovation in the development and production of polyurethane sealants, we have been able to offer excellent mechanical properties with excellent universal adhesion, ease of application and UV resistance. HYPERSEAL® sealants guarantee the sustainable water tightness of a building while it allows users to benefit from their ease of application.

This method of application guide outlines the general requirements for the successful application of HYPERSEAL® products regarding joint sealants installation and ensuring maximum performance.

GENERAL SYSTEM CONDITIONS

EQUIPMENT

For successful and safe applications specific tools and equipment are required. Each application might have different requirements in terms of application and protection equipment.

The following application equipment is at minimum required:

- Protective clothing: Protective overalls, masks, and gloves.
- Mixing equipment: 1KW slow speed drill, 400 or 500 rpm, and suitably sized mixing vessel.
- When stirring (or pigmenting) take care not to introduce air into the fluid, which may result in bubbling on the cured membrane. Stirring can either be done manually or with a low speed (300 rpm) mixer.
- Application equipment: Brush, roller, notched trowel, squeegee, rubber spatula, caulking gun, spatula. Specific airless spray machines can also be used. Caulking guns.
- Extra equipment: Digital scale or other measuring equipment

Products can be applied with a variety of equipment. Please choose the desired equipment and method of application according to your preferences and experience after consulting the proposed method of application on TDS of the Product.

WORKING WEATHER CONDITIONS

- Application temperature range: 5°C to 35°C.
- Avoid dew point conditions during application.
- Relative humidity must be a maximum of 95% and substrate temperature must be at least 3°C above measured dew point temperatures.
- Do not apply under rain or snow.
- If temperature is above 35°C, the following guidelines are recommended:
  - Store materials in a cool environment, avoiding exposure to direct sunlight.
  - Keep application tools cool and dry.
  - Try to avoid application during the hottest hours of the day.

SURFACE PREPARATION

THE FOLLOWING FACTORS PRIOR TO APPLICATION SHOULD BE CHECKED:

- ✓ Substrate type and condition.
- ✓ Previous substrate mechanical preparations (sanding, polishing, shot blasting, or milling)
- ✓ Porosity of the surface
- ✓ Existing cracks or damaged areas.
- ✓ In existing dilatation joints, remove old material, clean it, and replace it with HYPERSEAL®.
- ✓ Existing membranes or coatings.
- ✓ The substrates must be both durable and cohesive. Check the substrate for contamination (oil, grease, etc.).

CONCRETE SUBSTRATES

Concrete substrates are used in the construction of roofs and foundations in modern architectural designs. However, because concrete is a porous surface exposed to different climatic conditions, it can absorb water which can then cause damage. Waterproofing is a basic need at almost all stages of construction work, in order to protect structures from the adverse effects of moisture and water ingress. In the case of exposed concrete roofs, it is vital to avoid any water leak in order to prevent any wear and corrosion of reinforcing steel in the concrete structure.

ALCHIMICA's high-quality concrete roof waterproofing and protection systems consist of quality products that hold excellent workability, durability, elasticity, and resistance to weather, chemical, mechanical, and thermal effects, as well as to UV radiation on either flat or sloping roofs.

Standard concrete substrate conditions

- Hardness: R28 = 15 MPa.
- Humidity: W < 10%.
- Temperature: 5-35 °C.
- Relative humidity: < 85%

METAL SUBSTRATES

Metal roofing is a common method for industrial or commercial buildings; however, climatic conditions have a great impact in the lifecycle of metal sheets, causing corrosion and damages that lead eventually to water leaks. ALCHIMICA's waterproofing system provides economical and durable refurbishment and protection for metal roofs in inclined and vertical substrates, easy coloring, and high resistance to harsh weather effects with excellent UV resistance while preventing from corrosion and damages, extending the life cycle of the metal sheets.

PREPARATION

Proper preparation of the concrete substrate is essential for complete adhesion and successful application.

- New concrete or other cementitious substrates should be at least 28 days old.
- The substrate should be clean and free of loose particles, oil, and grease.
- The substrate should be free of any irregularities. If needed, it should be ground with the appropriate mechanical equipment in order to achieve a flat and sound surface.
- The substrate should be free of dust. Vacuum treatment or/ and high-pressure washing is recommended to remove dust.

- Primer application can be done over damp concrete too. But any ponding water should be removed before primer application.
- Metal details should be free of rust, oils, and old paints.
- The surface of PVC pipes should be treated with sandpaper in order to become rough.
- Surface irregularities can be filled with the appropriate HYGROSMART® products.
- For concrete levelling or sloping the appropriate HYGROSMART® products must be used.
- For more information about surface preparation please contact our technical assistance team.

MANDATORY DISCLAIMER BEFORE APPLICATION:

Testing the products to be used in this build-up application on the specific substrate and conducting mock-up tests are essential steps to ensure good adhesion. Mock-up tests replicate real-world conditions and provide a practical way to evaluate the performance of the products in situ. Pull-out tests conducted on these mock-ups help assess the bond strength between the products and the substrate, giving valuable insights into their adhesion capabilities.

By testing the products on the specific substrate and conducting mock-up tests, any potential issues or concerns regarding adhesion can be identified and addressed before full-scale implementation. This proactive approach helps mitigate risks associated with poor adhesion, ensuring the long-term durability and effectiveness of the build-up system.

ALCHIMICA advises the thorough testing of the system to be performed prior to proceeding with full surface application in order to determine the suitability of the system based on project requirements.

SUBSTRATE PRIMING

PRIMER	AQUASMART-DUR / AQUADUR	MICROSEALER-50	GEODESMO-50
CONSUMPTION	- 150-200 gr/m² - water/humidity barrier –three coats with total cons. of 500-600 gr/m²	- 150-200 gr/m² per coat - 100-300 gr/m², subject to substrate porosity	- 150-200 gr/m² per coat - 100-500 gr/m², subject to substrate porosity.
COMPOSITION	WATER BASED EPOXY	SOLVENT-BASED PU	SOLVENT-BASED PU
APPLICATIONS METHODS	brush, roller	brush, roller	brush, roller
TACK FREE TIME, @ 77 °F (25°C) & 55% RH	3-5 Hours	6-12 Hours	1-3 Hours
RECOAT TIME OF PRODUCT WHEN NEEDED	When the material has hardened to the degree where it can no longer be punctured by fingernail 6-24 Hours	6-12 Hours	1-3 Hours

NEXT COAT TIME (HYPERDESMO® MEMBRANE)	Once the colour on the current coat goes from milky white to transparent 6-24 Hours	12-24 Hours	2-24 Hours
RECOMMENDED			

Choose a suitable primer for your project needs and requirements:

■ AQUASMART-DUR is a medium viscosity epoxy-based primer. It is a water-based epoxy primer and humidity barrier, suitable for application in closed spaces too. It is a two-component product with a 1:1 mixing ratio by volume with zero VOC, low odor, and non-flammability. It has a long pot life while being fast curing, easy to clean, and suitable for concrete and humid concrete too.

Mixing: Mix the two components well manually or using a low speed (300 rpm) mixer.

Application: You choose to apply this primer over a sound concrete surface. AQUASMART-DUR primer will create a slight film sealing the concrete and increasing the adhesion. After the AQUASMART-DUR application, you should wait at least 12 hours to apply the main membrane. The main membrane application has to be done within 48 hours after the AQUASMART-DUR application. AQUASMART-DUR is completely solvent-free and low VOC primer. If a negative pressure humidity barrier is required, increase total consumption of AQUASMART-DUR at a minimum of 500 gr/m^2 in 3 successive layers (150-200gr/m^2 per coat)

■ MICROSEALER-50 is a polyurethane based primer/concrete sealer suitable for both porous and non-porous substrates. It is a single component with low viscosity, deep penetration, and slow cure, offering excellent wetting, impregnation, and paint-over time on various substrates. It seals and stabilizes substrates, ensuring good adhesion of the main coat. It is suitable for concrete, humid concrete, metal/steel, porous ceramic tiles, and gypsum boards.

Mixing: Mix the product well manually or using a low speed (300 rpm) mixer.

Application: You choose this primer if your concrete surface is porous. MICROSEALER-50 primer will penetrate, stabilize, and seal the concrete surface in depth. After MICROSEALER-50 application you should wait at least 12 hours in order to apply the main membrane. Apply the main membrane within a maximum of 7 days after primer application.

■GEODESMO-50 is a low viscosity, fast curing, polyurethane based primer. Its fast-curing profile makes it suitable for colder climates and unpredictable rain. It is a single component with excellent wetting, impregnation, and paint-over time properties. It is used for sealing and stabilizing substrates, ensuring good adhesion of the main coat. GEODESMO-50 is the faster curing version of MICROSEALER-50 and is ideal for extreme porosity in concrete surfaces where multiple coats of primer may be required. It can be used on both dry and wet concrete, even green concrete, as a primer and low-cost sealing solution, increasing substrate durability and adhesion strength. It can be used successfully on both porous and non-porous substrates.

Mixing: Mix the product well manually or using a low speed (300 rpm) mixer.

Application: You choose this primer if the concrete surface is extremely porous. GEODESMO-50 has a very fast curing profile (same-day primer), which allows it to be used more successfully in colder climates and when rain is not very predictable because 2-3 hours after this primer application, you can apply the main membrane. Although the material has such a fast-curing profile, it has a good memory also. Application over it, is possible even the next day and up to 48 hours.

NOTES ON SURFACE PREPARATION & PRIMING:

Choose a suitable primer from the primer selection table regarding your surface needs and requirements. Additional primers to use on special substrates.

APPLICATION OF PRIMER-T ON NON-POROUS SUBSTRATES

Apply masking tape to the surfaces next to the joint to keep excess primer from reaching other areas. Apply PRIMER-T with a clean lint free cloth or paper towel onto the surface. Let it cure for at least 10-15 minutes.

APPLICATION OF PRIMER-PVC to PVC SUBSTRATES

Apply masking tape to the PVC surfaces next to the joint to keep excess primer from reaching other areas. Apply PRIMER-PVC with a clean lint free cloth or paper towel onto the surface. Let it cure for at least 10-15 minutes.

APPLICATION OF MICROPRIMER-PU ON POROUS SUBSTRATES

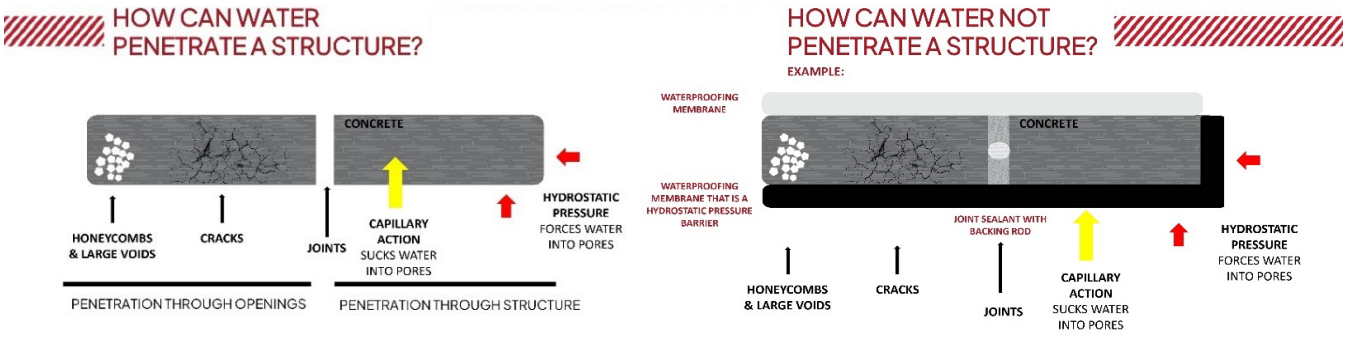
Apply masking tape to the surfaces next to the joint to keep excess primer from reaching other areas. Apply MIRCOPRIMER-PU with a clean brush at a consumption of 100-200gr/m2.

Notes:

1. If it rains after the primer and before the main coat application, you may need to apply one coat of primer again.
2. More primers are available for special cases, surfaces, and weather conditions.
3. For more information about surface preparation please contact our technical assistance team.

Concrete expansion joints are small gaps in structures designed to prevent cracks, absorb stresses, and allow soil movement. They allow independent movement and thermal expansion without inducing stress. Concrete is susceptible to cracks due to its non-elastic nature, so joints are strategically placed to prevent failure. However, structures with expansion joints are susceptible to water leaks, so waterproofing and applying a durable sealant are essential to maintain flexibility and allow the joint to function properly. All dilatation joints, inner angles, wall-floor connections, cracks,

drainage details, pipes, and other elements of equipment mechanically installed on a roof (air conditioning, antennas, photovoltaic systems, etc.) must be treated.



Dilatation joints and inner angles should be treated with HYPERSEAL®-EXPERT-150, polyurethane based sealant.

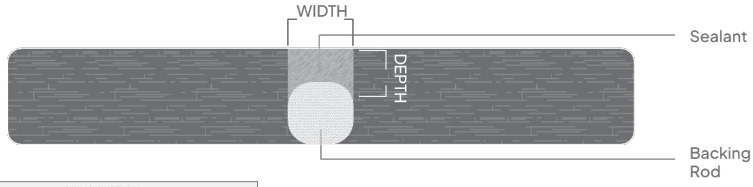
Clean joints thoroughly, and ensure that no dust, oil, grease, wax contaminants, or silicone remains are present. For many applications, primer is not obligatory. However, in case of application on porous or/and wet substrate the primer is required, as there is a possibility of air bubbles blown into the uncured sealant if the substrate temperature rises.

After the primer is cured, apply in dilatation joints the right backing material (where needed) – an open cell polyurethane or a closed cell polyethylene backing rod. Be sure that when applying a closed cell polyethylene backing rod, its outer skin is not punctured, as rising temperature may cause bubbles. Backing rod application is important as it ensures the correct width-to-depth ratio and provides a firm backing against which the sealant can be tooled off. Apply the sealant HYPERSEAL®-EXPERT-150. Choose HYPEFIX-PUD-FC sealant when treating minor cracks in walls and parapets prior to painting these elements with AQUASMART SYSTEM products.

■ HYPERSEAL®-EXPERT-150 is a low modulus sealant, formulated to ensure bubble free cure even at very high temperatures and humidity climatic conditions. The product displays excellent thixotropy allowing its use even in very large expansion joints. It cures by reaction with atmospheric humidity to produce a joint sealant with a 50% joint movement accommodation factor and excellent adhesion on many types of substrates (concrete, fibrous cement, mosaic, cement roof tiles, wood, also glass, aluminum, steel, polycarbonate, etc.). The extrusion rate and tooling of the sealant remain the same throughout a very wide range of temperature and humidity conditions.

■ HYPERFIX-PUD-FC is a versatile, water based polyurethane sealant ideal for a broad range of indoor and outdoor applications. Engineered using ALCHIMICA's advanced water based polyurethane dispersion technology, this sealant excels in connecting joints across various surfaces including stairs, walls, ceilings, and window frames, withstanding joint movements up to 12.5% and maintaining elasticity at temperatures as low as -15°C. It's fast-drying, paintable, and offers excellent adhesion without primer, making it perfect for gap and crack filling before applying ALCHIMICA's water-based protective coatings.

JOINT DIMENSIONS



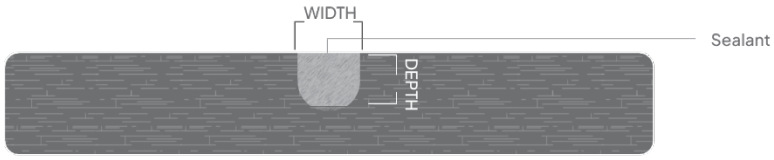
CONSUMPTION					
WIDTH / DEPTH	5mm	10mm	15mm	20mm	25mm
5mm	24	12			
10mm			4	3	2,4
15mm					1,6

- Width # depth ratio 2/1
- Minimum width size 5mm

To make sure a sealing joint fulfils its requirements under all conditions it has to maintain a dimension ratio of 2:1 with a maximum joint depth of 3cm.

- Slide the sealant HYPERSEAL®-EXPERT-150 into the sealant dispensing gun, cut off the very end of the sealant packaging, and fit the gun with the nozzle. The nozzle should be cut to deliver the right bead size. Extrude the sealant into the joint ensuring that no air is trapped in the joint. Tooling is recommended immediately after the application of sealant. The ratio width to depth should be 2:1 subject to a maximum depth of 25mm.

- HYPERFIX-PUD-FC: The ratio of joint depth to width should be 1:1, assuming a maximum joint width at 10mm.



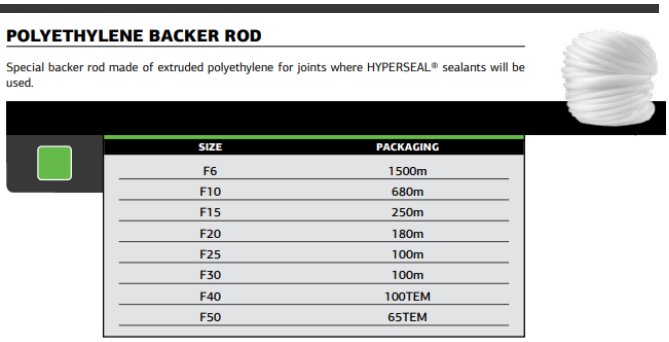
- the ratio of joint depth to width should be 1:1, assuming a maximum joint width at 10mm.
- Minimum width and depth at 5mm.
- For joints wider than 10 mm, the depth should be controlled at 1/3 of the width.

NOTE:

- Tool the sealant with a spatula.
- Do not use any solvent, alcohol, or soap to smooth the material.

INSTALLATION OF BACKING ROD

It is recommended to use closed-cell polyethylene backing rods for joint sealing. Make sure that the backing rod's skin is not damaged during the installation as this may influence the joint's quality. Check the position of the backing rod to maintain a 2:1 ratio on joint dimensions.



POLYETHYLENE BACKER ROD

Special backer rod made of extruded polyethylene for joints where HYPERSEAL® sealants will be used.

SIZE	PACKAGING
F6	1500m
F10	680m
F15	250m
F20	180m
F25	100m
F30	100m
F40	100TEM
F50	65TEM

APPLICATION OF HYPERSEAL ® SEALANTS

Masking tape can be used to keep excess sealant from contacting adjacent areas and offer better aesthetic results. Apply the sealant using a caulking gun and make sure

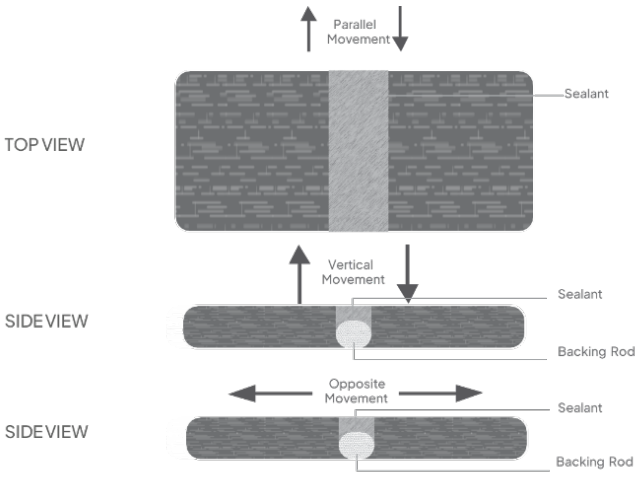
that the sealant is in full contact with the joint sides. Avoid air entrapment by keeping the tip of the nozzle on bottom of the joint. Use a spatula to remove excess material and tool the sealant accordingly. Complete tooling and remove the masking tape.

TREATMENT OF DETAILS

All connections, cracks, drainage details, pipes, and other elements of equipment mechanically installed on a roof (air conditioning, antennas, photovoltaic systems, etc.) should be treated. Select the preferable treatment using sealant HYPERSEAL®-EXPERT-150, or/and HYPERDESMO® System with

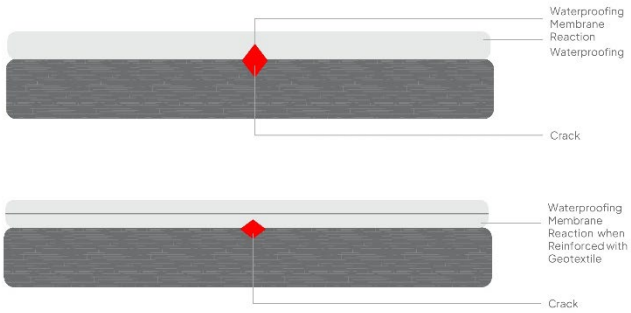
GEOTEXTILE, or/and HYPERDESMO®-PARTICULAR.

Clean details and cracks thoroughly, and ensure that no dust, oil, grease, wax contaminants, or silicone remains are present. For many applications, primer is not obligatory. However, in case of application on porous or/and wet substrate, the primer is required, as there is a possibility of air bubbles blown into the uncured sealant if the substrate temperature rises. Select a suitable primer according to the substrate type and needs.

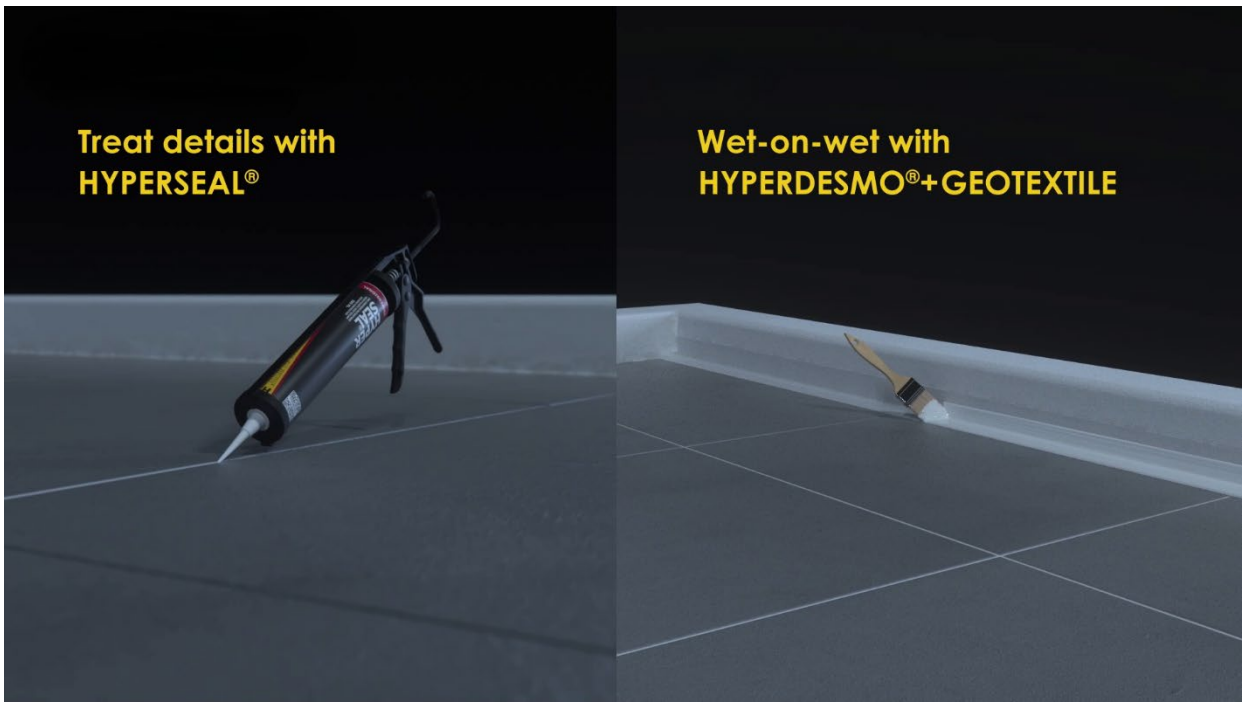


Dilatation joints, inner angles, and small cracks should be treated with HYPERSEAL®-EXPERT- 150 polyurethane-based sealant or any other suitable HYPERSEAL® sealant as described above.

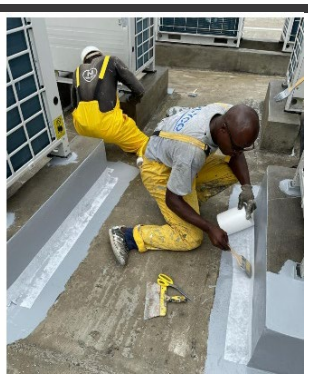
THICKNESS OR TENSILE STRENGTH



Choose one of the following methods, depending on your preference and needs:

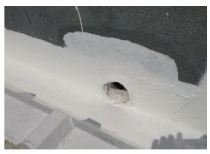


TREATMENT WITH REINFORCEMENT: HYPERDESMO® or AQUASMART SYSTEM® with GEOTEXTILE.



Cracks and details can also be treated by application of HYPERDESMO® Or AQUASMART® System with GEOTEXTILE reinforcement. When the primer is fully cured, treat the details with HYPERDESMO® SYSTEM using a brush or small roller. Apply a piece of GEOTEXTILE (strips 0.17x100m, non-woven geotextile of 50-100gr/m^2) cut in proper size, wet on wet, for better protection from cracks in these specific points, if movement happens in the future. After the details treatment has been completed you continue with the application of the full surface waterproofing system.

FIBER-REINFORCED PU: HYPERDESMO®-PARTICULAR.



This is an alternative option when application of HYPERDESMO® System with GEOTEXTILE is not possible or easy. HYPERDESMO®-PARTICULAR is a thixotropic and fiber-reinforced, one component polyurethane liquid membrane used for waterproofing and protection of roof detail structures. Due to its unique formulation, it cures rapidly to form a bubble free thick layer membrane with excellent mechanical properties. HYPERDESMO®-PARTICULAR is an effective sealing material for the treatment of installation details on roofs, such as chimneys, pipes, photovoltaic systems, air-conditioning units, and gutters. This product is ideal for usage during the winter months or in climates with relatively low humidity. Apply the material with a spatula or a brush with the consumption required to fill in the gaps, but with a thickness of no more than 2 mm. It can be applied as standalone sealing material as well as together with HYPERSEAL®-EXPERT-150. In this case, the depth is filled in with sealant HYPERSEAL®-EXPERT-150, and then the irregularities on the top part are treated with thixotropic HYPERDESMO®-PARTICULAR.

NOTE:

- Clean tools and equipment first with a paper towel and then using SOLVENT-01.

WATERPROOFING MEMBRANE

Apply the desired WATERPROOFING MEMBRANE based on HYPERDESMO or AQUASMART system in 2 successive layers with minimum total consumption 1.7kg/m2.

TOP COAT

For abrasion resistance and colour protection, you should apply a topcoat of HYPERDESMO-ADY-E at the desired colour. Total consumption of HYPERDESMO-ADY-E should be 0.2 -0.4 kg/m2 in 1- 2 successive coats over the well cured HYPERDESMO SYSTEM surface. Total consumption depends on traffic conditions. Refer to the additional method statements for the specific project needs and requirements.

CLEANING

Clean tools and equipment first with paper towels. Tools and equipment should be cleaned immediately using SOLVENT-01 (or water for water-based materials). Rollers will not be re-usable.

SELECT THE RIGHT SEALANT

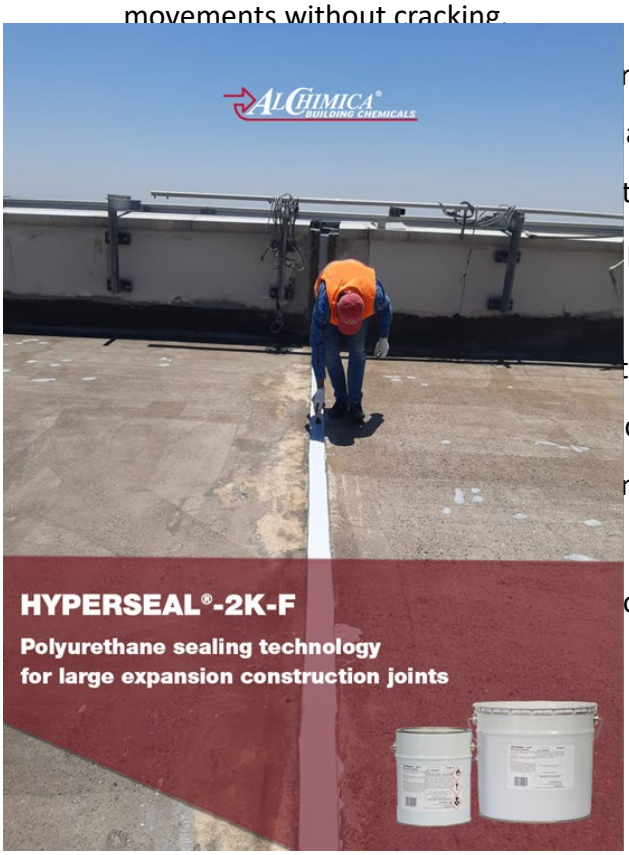
ALCHIMICA sets the industry standards with its HYPERSEAL® range of polyurethane sealants, ingeniously engineered for robust sealing solutions. The product line offers versatility through items like HYPERSEAL®-Expert-150, designed for low modulus needs with a remarkable 50% joint movement accommodation. The range is also enriched with high modulus, options such as HYPERSEAL®-50 FC-S, and the exceptional HYPERSEAL®-2K-F—a two-component sealant favored for airway runway joints. Compliance with the new EU legislation is assured as several HYPERSEAL® products carry the CE mark, securing their quality and performance. Their applications span a multitude of surfaces, including concrete, metal, glass, and various stones, with each product offering excellent adhesion, heat resistance, and chemical resilience, even underwater—an epitome of sealing technology designed for both durability and performance.

HYPERSEAL®

Choose the right Sealant for you and your project's needs.

A universal sealant that combines the excellent mechanical properties of a polyurethane sealant with excellent universal adhesion, ease of application, and non-toxicity. A gunnable sealant for construction, flooring, and expansion joints.

- Flexibility: Highly elastic: low modulus, joint movement accommodation 50% They maintain elasticity even after curing, allowing them to accommodate joint movements without cracking



HYPERFIX–PUD-FC

A new generation, water-based polyurethane sealant which is based on ALCHIMICA's innovative water-based polyurethane dispersion technology. It is odorless and has zero VOC content making it a preferred choice for indoor applications.

- Flexibility: provides high elongation at break and can accommodate joint movement up to 12.5%, retaining elasticity even at temperatures as low as -15°C. This makes it suitable for applications requiring movement accommodation.
- Adhesion: It exhibits perfect adhesion without the use of a primer on most substrates, even slightly damp onesZ making it very versatile.
- Temperature Resistance: Serviceable over a temperature range from -20 to 75°C, allowing for application in various environmental conditions.
- Weather Resistance: The sealant is highly resistant to water immersion and has passed the QUV Accelerated Weathering Test, indicating good durability for exterior uses with proper weather conditions during application.
- Applications: The sealant is excellent for connection joints between stairs, walls, ceilings, skirtings, windowsills, wood, and metal window frames, as well as concrete and brickwork.

HYPERSEAL®-EXPERT-150

HYPERSEAL®-EXPERT-150 is a novel low modulus expansion joint polyurethane sealant.
Characteristics: One component, especially formulated to ensure bubble free cure even at very high temperature and humidity climatic conditions and can stay exposed to UV.
Properties: Thixotropic with a 50% joint movement accommodation factor and excellent adhesion on substrates such as e.g. glass, aluminum, steel, polycarbonate, etc.
Usage: Insitu and precast concrete, expansion concrete panels, flooring applications, bricks and blocks work, swimming pools, metal frames, aluminium windows and panels, irrigation channels, glass, granite, marble.
The extrusion rate and tooling of the sealant remain the same throughout a very wide range of temperature and humidity conditions.

COLOR	PACKAGING
WHITE / GREY / BEIGE	300cc - 600cc
BLACK / RED / BROWN	300cc - 600cc

HYPERSEAL®-EXPERT-BUILDING

HYPERSEAL®-EXPERT-BUILDING is a novel low modulus expansion joint polyurethane sealant, not recommended for direct UV exposure.
Characteristics: One component, especially formulated to ensure bubble free cure even at very high temperature and humidity climatic conditions.
Properties: Thixotropic with a 50% joint movement accommodation factor and excellent adhesion on substrates such as e.g. glass, aluminum, steel, polycarbonate, etc.
Usage: Insitu and precast concrete, expansion concrete panels, bricks and blocks work, swimming pools, metal frames, aluminium windows and panels, irrigation channels, glass, granite, marble.
The extrusion rate and tooling of the sealant remain the same throughout a very wide range of temperature and humidity conditions. It always need to be overpainted.

COLOR	PACKAGING
WHITE / GREY	600cc

HYPERSEAL®-25LM-S

HYPERSEAL®-25LM-S is a low modulus sealant especially formulated to contain both PU and silylated-PU technology.
Characteristics: One component and UV resistant.
Properties: Thixotropic with a 50% joint movement accommodation factor and excellent adhesion on substrates such as e.g. glass, aluminum, steel, polycarbonate, etc.
Usage: Insitu and precast concrete, expansion concrete panels, bricks and blocks work, swimming pools, metal frames, aluminium windows and panels, irrigation channels, glass, granite, marble.
The extrusion rate and tooling of the sealant remain the same throughout a very wide range of temperature and humidity conditions.

COLOR	PACKAGING
WHITE / GREY / BEIGE	600cc
RED / BLACK / BROWN	600cc

HYPERSEAL®-50FC-S

HYPERSEAL®-50FC-S is a unique high modulus, fast curing PU-based sealant/adhesive that contains both PU and silylated PU technology.
Characteristics: One component, specifically formulated to contain both PU and silylated PU technology, thus incorporating the best properties of both technologies.
Properties: Thixotropic with rapid curing and early grab adhesion, UV resistant.
Usage: Metal frames, aluminium windows and panels, irrigation channels, glass, granite, marble, flooring applications.
The extrusion rate and tooling of the sealant remain the same throughout a very wide range of temperature and humidity conditions

COLOR	PACKAGING
WHITE / GREY / BEIGE	600cc
RED / BLACK / BROWN	600cc

HYPERSEAL®-EXPERT-60 FC

HYPERSEAL®-EXPERT-60 FC is a fast curing, high hardness, chemical resistant polyurethane sealant
Characteristics: Single component with excellent chemical resistance and is recommended in applications of sealing joints where contact with water polluting liquids occurs.
Properties: Excellent adhesion on almost any type of surface, with or without the use of special primers, excellent chemical resistance. Microorganism and fungus resistant
Usage: Direct glazing applications, automotive glass replacement, floor joints in petrol stations, joints in secondary containment, metal frames, aluminum windows and panels.

COLOR	PACKAGING
WHITE / GREY	600cc

6 HYPERSEAL®
SEALANTS & ADHESIVES

POLYURETHANE

HYPERSEAL®-2K-F

HYPERSEAL®-2K-F is a pourable liquid applied polyurethane sealant ideal for large horizontal construction joints and airport runways.
Characteristics: Two component, resistance to jet fuel.
Properties: Provides significant waterproofing with excellent resistance to chemicals and various climatic and temperature conditions.
Usage: Large expansion construction joints, airport runways, water tanks, irrigation channels.

COLOR	PACKAGING
GREY	6kg (2+4) - 12kg (4+8)

AQUASMART® THERMO-SEALER

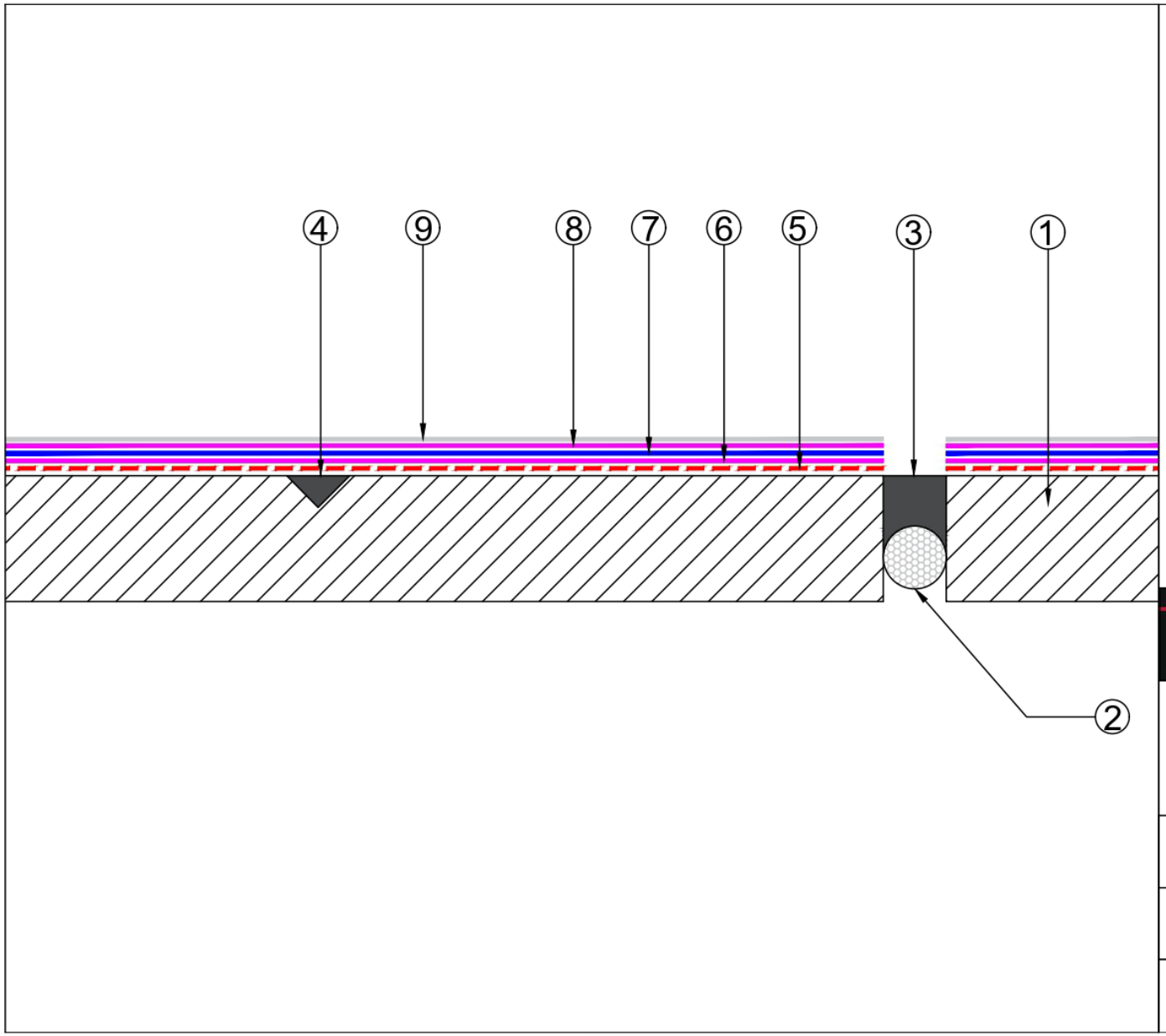
AQUASMART® THERMO-SELAER is a waterborne lightweight insulating putty/sealant.
Characteristics: One component, polyurethane putty, easily applied by caulking gun.
Properties: Thixotropic, aliphatic and elastomeric and is easily over painted without requiring sanding.
Usage: Concrete, stucco, over old acrylic paints, wood, old plaster boards, both indoors and outdoors.

COLOR	PACKAGING
WHITE	600cc

ANNEX

- ANNEX A. JOINT AND CRACK TREATMENT WITH HYPERDESMO SYSTEM FOR WATERPROOFING AND PROTECTION
- ANNEX B. DRIP EDGE DETAIL TREATMENT
- ANNEX C. DECK CHECK KERB DETAIL TREATMENT
- ANNEX D. ABUTMENT TO BRICKWORK DETAIL TREATMENT
- ANNEX E. CHANGE OF LEVEL DETAIL TREATMENT
- ANNEX F. DRAIN DETAIL TREATMENT
- ANNEX G. VERTICAL RAINWATER OUTLET DETAIL TREATMENT
- ANNEX H. VENT PIPE PENETRATION DETAIL TREATMENT

ANNEX A. JOINT AND CRACK TREATMENT WITH HYPERDESMO SYSTEM FOR WATERPROOFING AND PROTECTION



NOTES

1. Concrete Deck
2. Polythene Backing Rod
3. Hyperseal® PU Sealant
4. Hyperseal® PU Sealant
5. Specified Primer by ABC Ltd.
6. Hyperdesmo® Liquid Membrane
7. Geotextil Reinforcement Fleece
8. Hyperdesmo® Liquid Membrane
9. Specfied Aliphatic Top Coat

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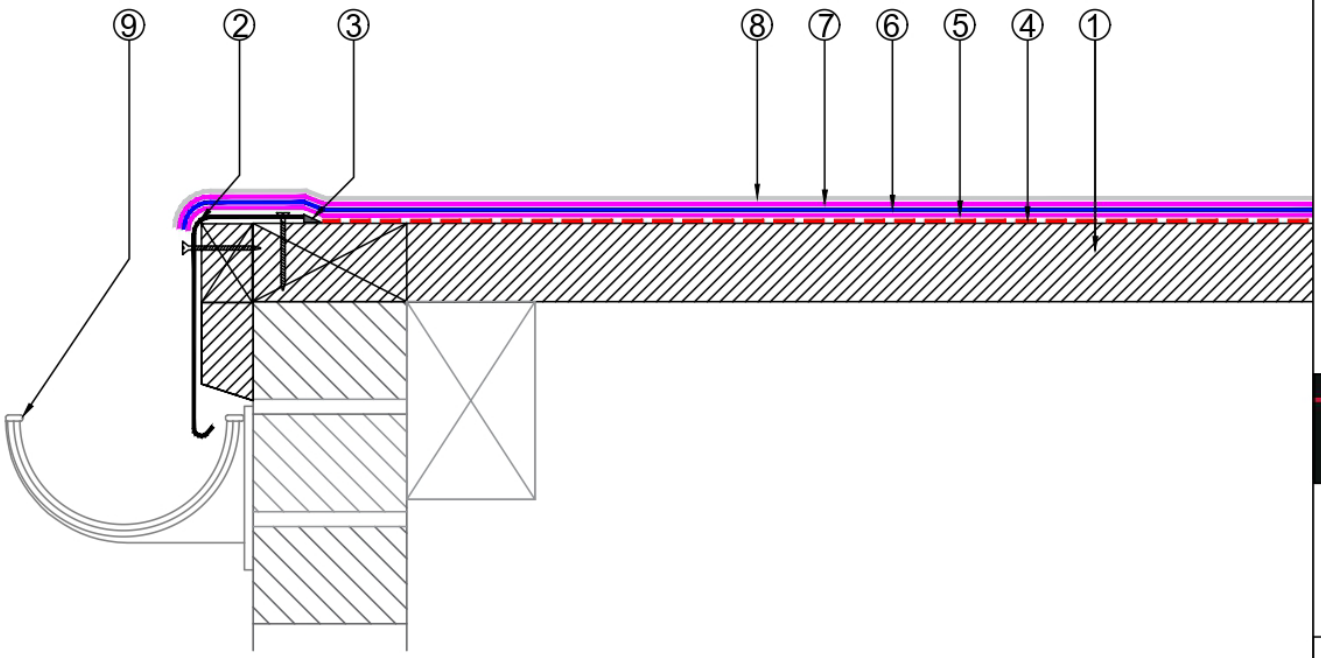
Pembrokeshire,
SA72 4RZ
Tel: 01437 563294
Internet: www.alchimica.co.uk
Email:info@alchimica.co.uk

TITLE:		
Hyperdesmo® Concrete-Roof Waterproofing		
DATE:	DRAWN BY:	SCALE:
Apr'19	JM	NTS
DRAWING NO:	REVISION:	
107		

ANNEX B. DRIP EDGE DETAIL TREATMENT



1. Concrete Deck
2. GRP Trim
3. Hyperseal® PU Sealant
4. Specified Primer by ABC Ltd.
5. Hyperdesmo® Liquid Membrane
6. Reinforcement Fleece
7. Hyperdesmo® Liquid Membrane
8. Specified Aliphatic Top Coat
9. Gutter Supplied by Other

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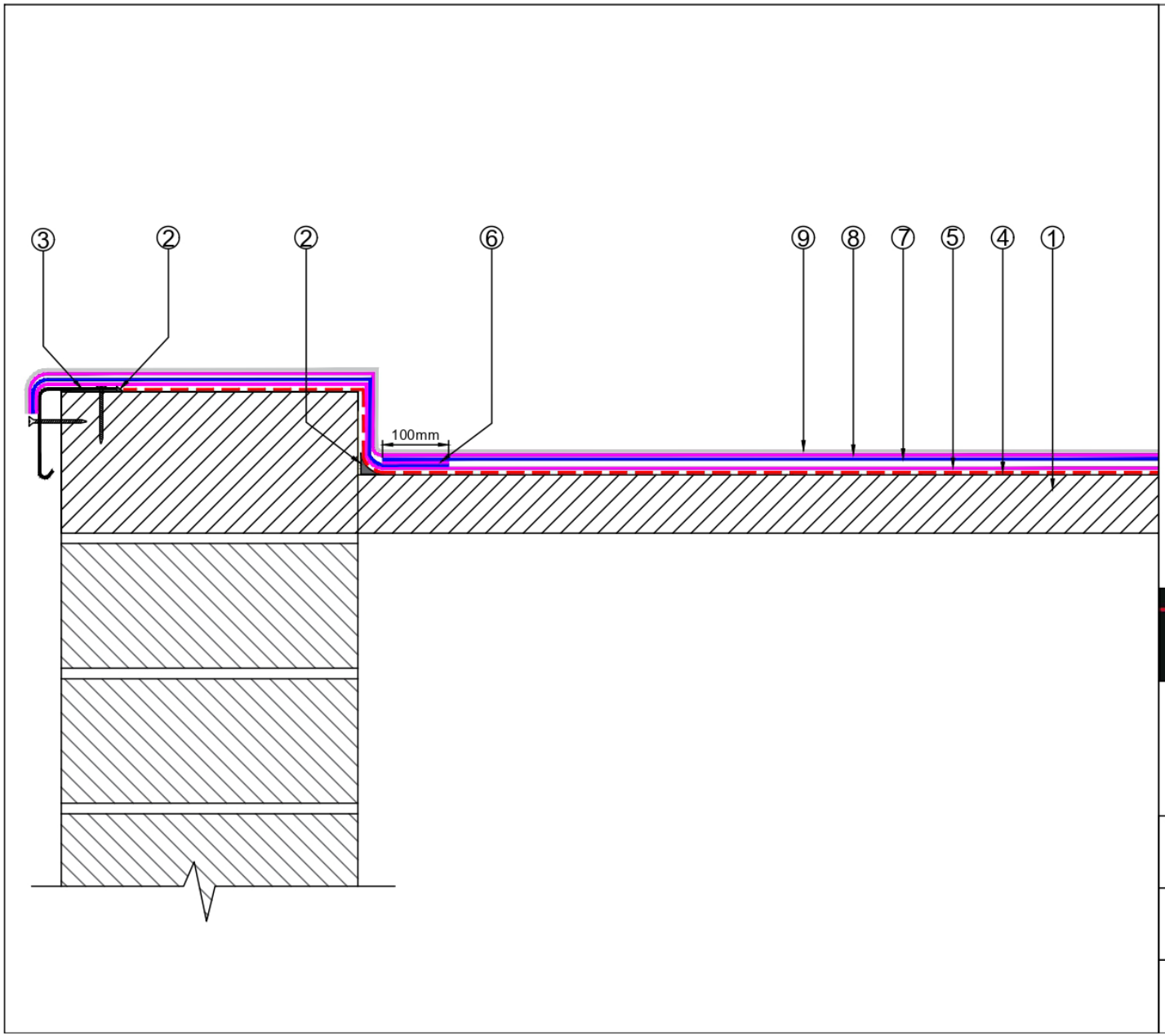
Tel: 01437 563294
Internet: www.alchimica.co.uk
Email:info@alchimica.co.uk

TITLE:		
Hyperdesmo® Concrete-Roof Drip Edge Detail		
DATE:	DRAWN BY:	SCALE:
Apr'19	JM	NTS
DRAWING NO:	REVISION:	
100		

ANNEX C. DECK CHECK KERB DETAIL TREATMENT



NOTES

1. Concrete Deck
2. Hyperseal® PU Sealant
3. GRP Trim
4. Specified Primer by ABC Ltd.
5. Hyperdesmo® Liquid Membrane
6. Reinforcement Detail
7. Reinforcement Geotextile
8. Hyperdesmo® Liquid Membrane
9. Specified Aliphatic Top Coat

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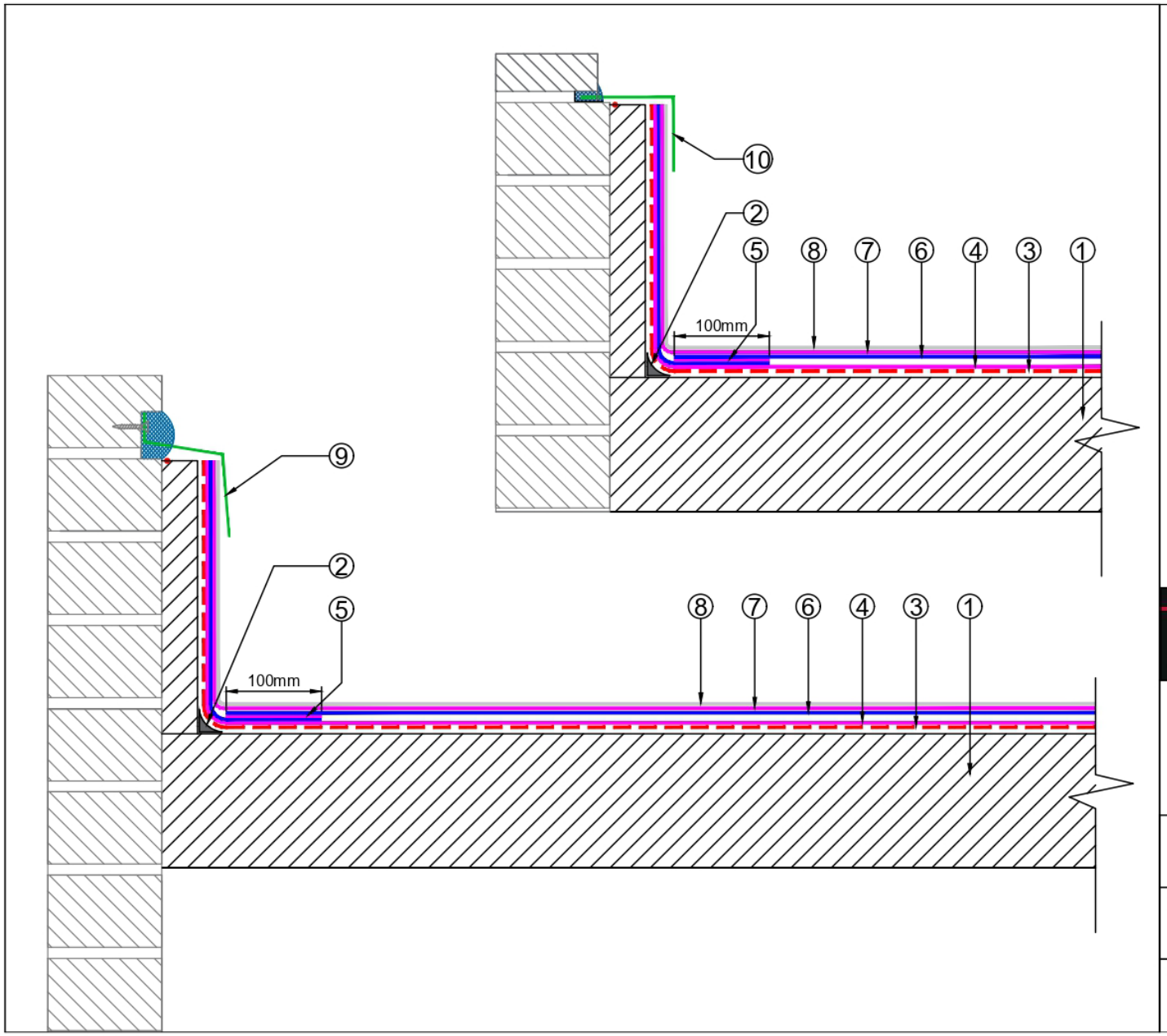
Internet: www.alchimica.co.uk
Email:info@alchimica.co.uk

TITLE:		
Hyperdesmo® Concrete-Roof Check Kerb Detail		
DATE:	DRAWN BY:	SCALE:
Apr'19	JM	NTS
DRAWING NO:	REVISION:	
101		

ANNEX D. ABUTMENT TO BRICKWORK DETAIL TREATMENT



NOTES

1. Concrete Deck
2. Hyperseal® PU Sealant
3. Specified Primer by ABC Ltd.
4. Hyperdesmo® Liquid Membrane
5. Reinforcement Detail
6. Reinforcement Geotextile
7. Hyperdesmo® Liquid Membrane
8. Specified Aliphatic Top Coat
9. Mechanically Fixed Flashing Supplied by Other
10. Chased Flashing Supplied by Other

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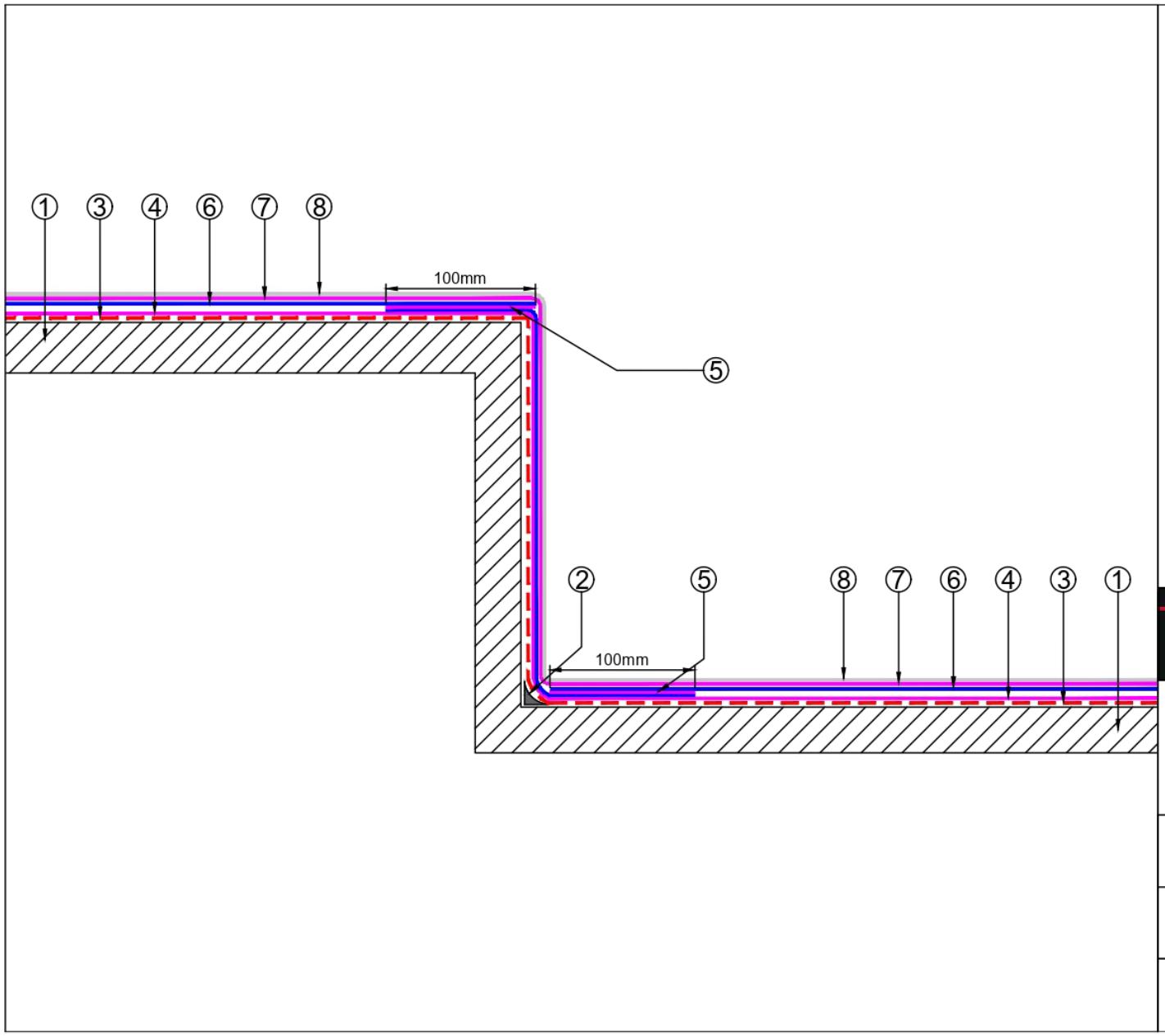
Internet: www.alchimica.co.uk
Email:info@alchimica.co.uk

TITLE:		
Hyperdesmo® Concrete- Roof Abutment to Brickwork Detail		
DATE:	DRAWN BY:	SCALE:
Apr'19	JM	NTS
DRAWING NO:	REVISION:	
102		

ANNEX E. CHANGE OF LEVEL DETAIL TREATMENT



NOTES

1. Concrete Deck
2. Hyperseal® PU Sealant
3. Specified Primer by ABC Ltd.
4. Hyperdesmo® Liquid Membrane
5. Reinforcement for Upstand Detail
6. Reinforcement for Geotextile
7. Hyperdesmo® Liquid Membrane
8. Specified Aliphatic Top Coat

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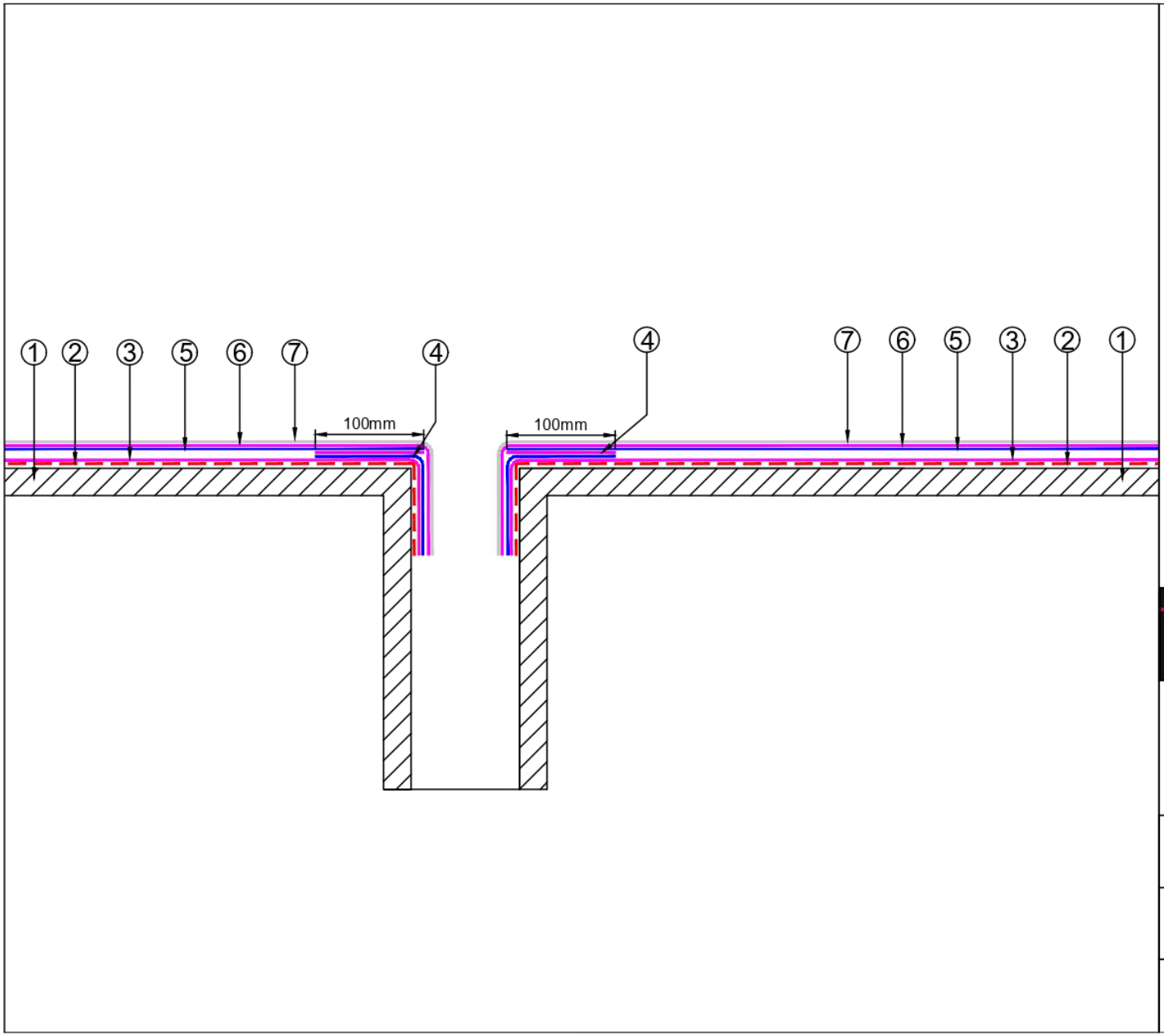
Internet: www.alchimica.co.uk
Email:info@alchimica.co.uk

TITLE:		
Hyperdesmo® Concrete- Roof Change of Level Detail		
DATE:	DRAWN BY:	SCALE:
Apr'19	JM	NTS
DRAWING NO:	REVISION:	
103		

ANNEX F. DRAIN DETAIL TREATMENT



NOTES

1. Concrete Deck
2. Specified Primer by ABC Ltd.
3. Hyperdesmo® Liquid Membrane
4. Inverted Top Hat Detail
5. Reinforcement for Geotextile
6. Hyperdesmo® Liquid Membrane
7. Specified Aliphatic Top Coat

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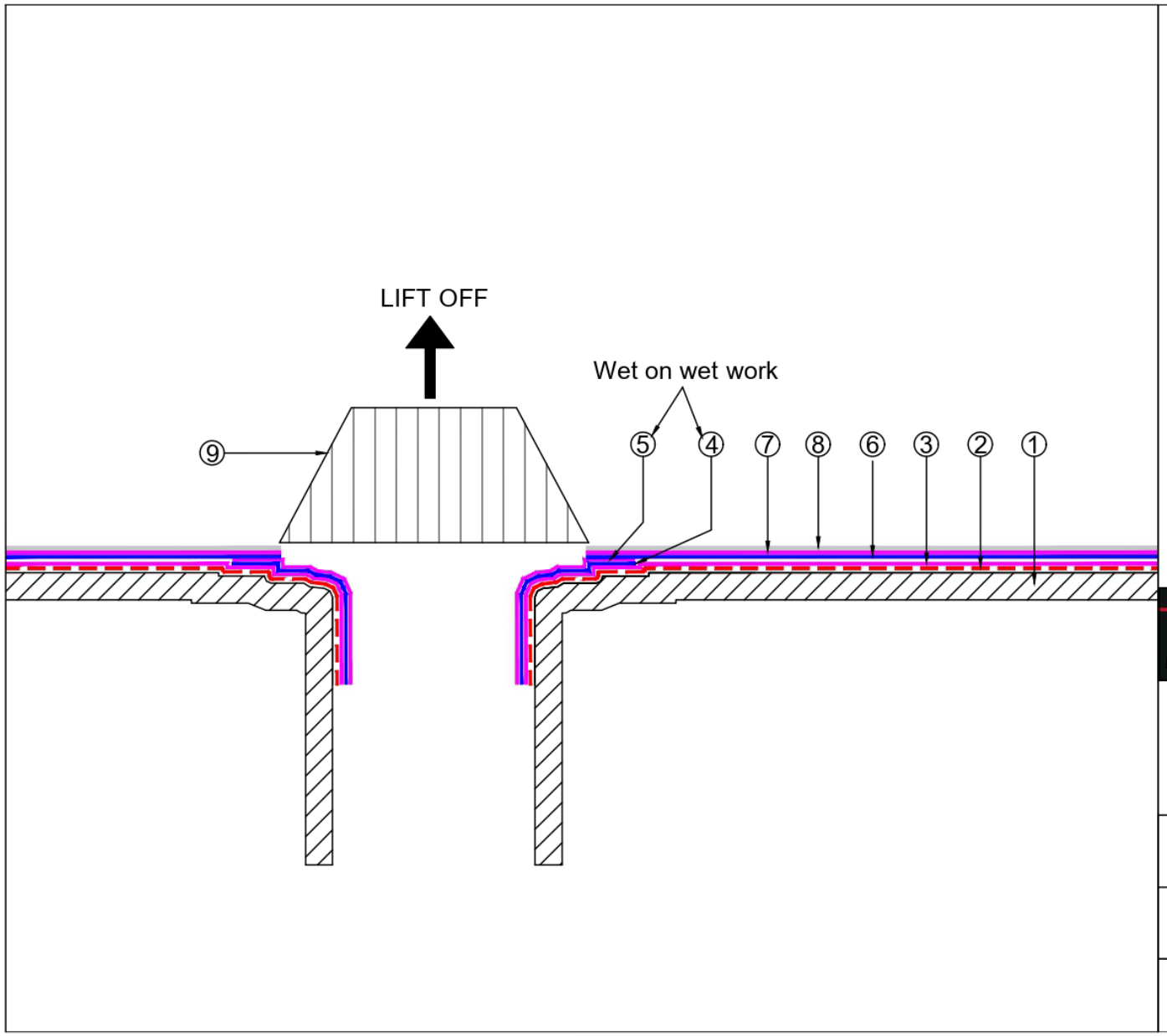
Tel: 01437 563294
Internet: www.alchimica.co.uk
Email:info@alchimica.co.uk

TITLE:		
Hyperdesmo® Concrete-Roof Drain Detail		
DATE:	DRAWN BY:	SCALE:
Apr'19	JM	NTS
DRAWING NO:	REVISION:	
104		

ANNEX G. VERTICAL RAINWATER OUTLET DETAIL TREATMENT



NOTES

1. Concrete Deck
2. Specified Primer by ABC Ltd.
3. Hyperdesmo® Liquid Membrane
4. Inverted Top Hat Detail
5. Hyperdesmo® Liquid Membrane
6. Reinforcement Geotextile
7. Hyperdesmo® Liquid Membrane
8. Specified Aliphatic Top Coat
9. Rainwater Outlet Detail Supplied by Other

ALCHIMICA® BUILDING CHEMICALS
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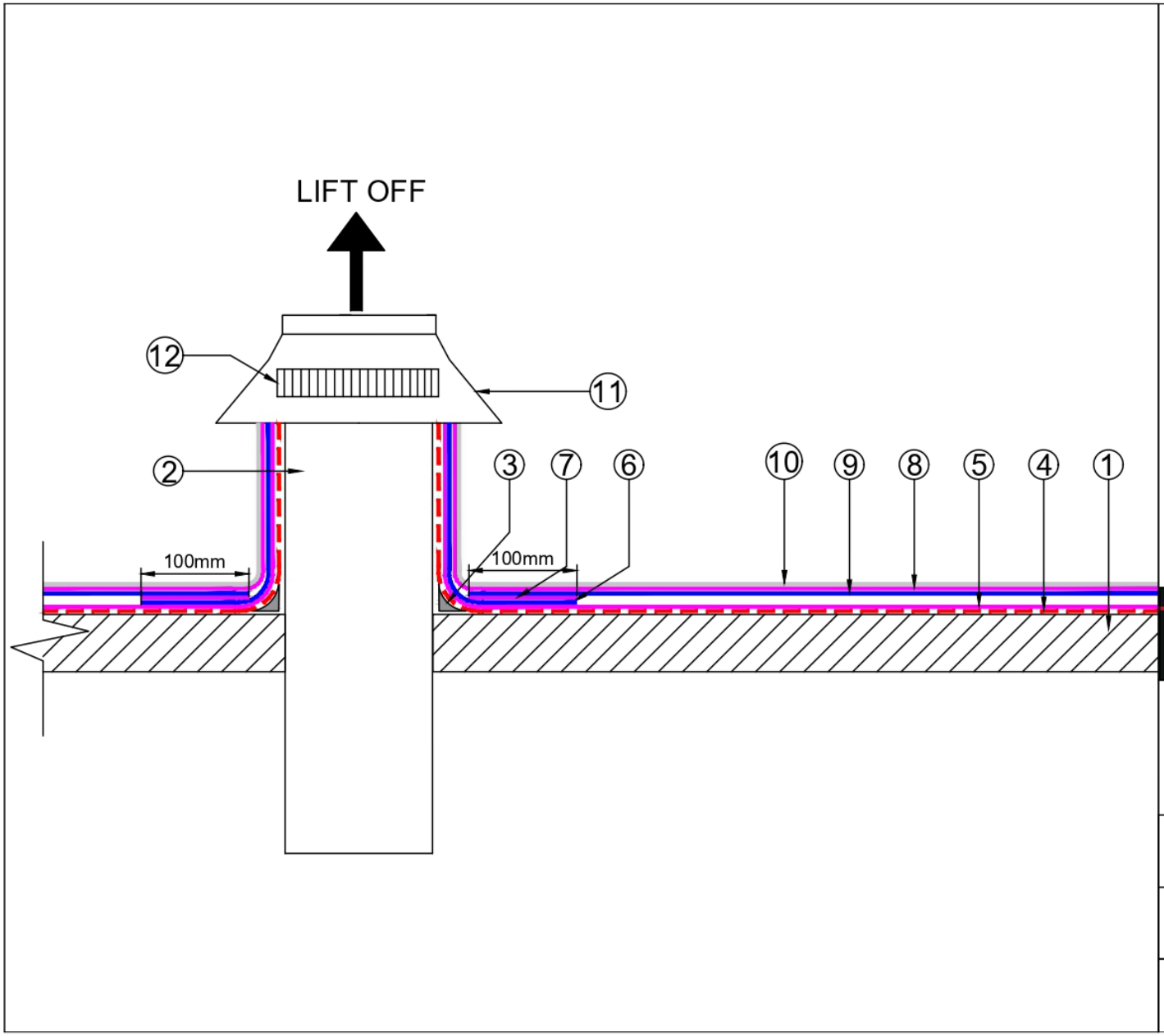
Alchimica Building Chemicals
Poolman Court, Pembroke Dock
Pembrokeshire,
SA72 4RZ
Tel: 01437 563294
Internet: www.alchimica.co.uk
Email:info@alchimica.co.uk

TITLE:		
Hyperdesmo® Concrete-Roof Vertical Rainwater Oulet		
DATE:	DRAWN BY:	SCALE:
Apr'19	JM	NTS
DRAWING NO:	REVISION:	
105		

ANNEX H. VENT PIPE PENETRATION DETAIL TREATMENT



NOTES

1. Concrete Deck
2. Pipe Detail
3. Hyperseal® PU Sealant
4. Specified Primer by ABC Ltd.
5. Hyperdesmo® Liquid Membrane
6. Reinforcement Detail
7. Hyperdesmo® Liquid Membrane
8. Reinforcement Geotextile
9. Hyperdesmo® Liquid Membrane
10. Specified Aliphatic Top Coat

11+12. Vent Pipe Details Supplied by Other.

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Email:info@alchimica.co.uk

TITLE:		
Hyperdesmo® Concrete-Roof Pipe Penetration Detail		
DATE:	DRAWN BY:	SCALE:
Apr'19	JM	NTS
DRAWING NO:	REVISION:	
106		

HEALTH AND SAFETY

The system proposal contains volatile flammable solvents. Apply in well-ventilated, no-smoking areas, away from naked flames. In closed spaces use ventilators and carbon-active masks. Keep in mind that solvents are heavier than air, so they float near the floor. The MSDS (Material Safety Data Sheet) of the products are available on request.

This handling safety advice is required for the implementation procedure as well as in the pre- and post-exposure to the loading machinery.

- Protect your lungs by using an air-purifying respirator when handling or spraying.
- Use rubber gloves to protect your skin and remove them promptly after contamination. Wear clean undergarments. After work and before eating, drinking, or smoking, thoroughly wash your hands with soap and water.
- Wear safety goggles to protect your eyes and face from splashes and airborne particles.
- Waste generation should be avoided or reduced.
- Incinerate under well-controlled conditions in line with local and national rules and regulations.
- Re-occupancy of the work site without respiratory equipment is limited to 24 hours if proper ventilation for the sprayed area is provided.
- Contractors and applicators must follow all applicable and necessary storage and safety regulations.
- In any case, review the system's material and safety data sheets.

PRECAUTIONS AND VARIATIONS.

The purchaser must determine the suitability of the products for the intended use and assume all related liabilities and risks. This information, recommendations, and any additional technical advice are given in good faith and are based on ALCHIMICA's present knowledge and experience of the products when properly stored, handled, and applied under normal conditions according to ALCHIMICA's recommendations.

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The performance of the products build up described herein should be verified by testing and carried out by qualified experts.

NOTE: This method statement is offered by ALCHIMICA as a 'summary proposal' for **DETAILS TREATMENT WITH ALCHIMICA'S SOLUTIONS**. For projects' particularities and more precise technical support, please contact ALCHIMICA at: alchimica@alchimica.com

Please consult the above-referred products' technical data sheets (TDS) and safety data sheets (SDS). Under any circumstances, ALCHIMICA does not assume any responsibility for the performance of the waterproofing system given the conceptual flaws of the existing build-up. Imperative for the performance of the system is the correct cleaning, inspection, and maintenance of the waterproofing system. For projects' particularities and more precise technical support, please contact ALCHIMICA at: alchimica@alchimica.com

Where alternative systems are to be used, these must be submitted to ALCHIMICA for approval. ALCHIMICA will not accept responsibility or liability for variations to the above under any other condition.

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- Appropriate Technical Documentation and/or Specific Technical Documentation: The performance of the products identified in the DoP files conform with the set of declared performances. This declaration of performance is issued in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer.
- It is recommended to check the TDS and MSDS of all the materials before use and application.

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