

ADPRUFE® System Components

- **ADPRUFE® 100** - liquid admixture for waterproofing concrete
- **ADVA®** - high range water reducing admixture (or other approved high performance superplasticisers)
- **ADCOR®** - hydrophilic waterstop system for construction joints & penetrations
- **SERVISEAL® AT & SERVITITE® AT** - PVC/hydrophilic co-extruded waterstop for movement joints or construction joints in retaining water structures
- **BETEC® 350** - waterproof cementitious compound for sealing tie-bar holes

Central to the ADPRUFE® System is quality concrete supplied with Adprufe® 100 and high performance superplasticisers such as GCP's ADVA®. This combination of admixtures effectively address the problems of conventional integrally waterproofed structures in terms of concrete workability, shrinkage cracks and concrete joints resulting in easier to compact concrete with good consistency and a low water/cement ratio. The result is fewer and narrower cracks promoting autogenous healing. Adprufe® 100 is a highly active product with considerably lower dosage than other liquid systems and is an easy to mix liquid enabling excellent dispersion.

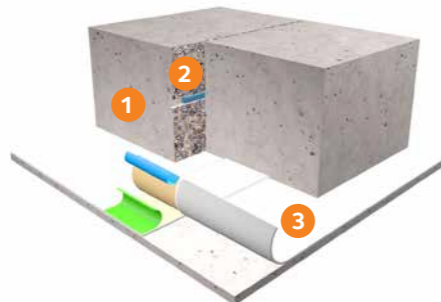
CONCRETE SEALED ✓

Active Joint Protection

By their nature, concrete joints are the most vulnerable part of an integrally waterproofed structure. Benefiting from knowledge gained from a worldwide track record of keeping water in or out of structures, the ADPRUFE® System features the latest active waterstop technology backed by expert problem solving and a customised design service using advanced tools. Uncommon for most integral waterproofing systems, ADPRUFE® System also includes solutions for movement and expansion joints. The GCP ADPRUFE® System is highly engineered to assure concrete and joint waterproofing protection.

ADCOR® SYSTEM FOR CONSTRUCTION JOINTS AND PENETRATIONS

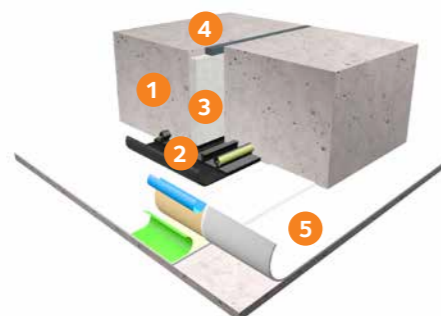
GCP ADCOR® is a conformable, swellable polymer/ butyl rubber waterstop strip. When fully encapsulated by poured concrete, the expansive forces form a seal against concrete faces. The injectable version in the range, ADCOR® MI, provides the advantages of both a pre-applied barrier and a post injected waterstop system. For detailed product information refer to GCP's ADCOR® data sheets.



1. Watertight concrete with Adprufe® 100
2. Adcor® for Construction Joints
3. Preprufe® Plus (if combined protection is required)

AT SYSTEM™ FOR EXPANSION AND OTHER CRITICAL JOINTS

Combining hydrophilic and conventional PVC waterstop technologies, GCP's AT System includes co-extruded swellable elements to provide active additional protection to vulnerable joints. For detailed product information refer to GCP's AT System data sheet.



1. Watertight concrete with Adprufe® 100
2. AT System for Expansion Joints
3. Aerofil® 2
4. Paraseal®
5. Preprufe® Plus (if combined protection is required)

JOINTS PROTECTED ✓

ADPRUFE® Integrally Waterproofed Concrete

Backed by 80+ Years Experience in Admixtures

GCP Applied Technologies' building materials and construction chemicals offer solutions for nearly every aspect of the built environment. GCP has improved the quality of billions of cubic meters of concrete and protected structures from water ingress worldwide.

TYPICAL APPLICATIONS

- Basement grades 1 to 3 BS 8102:2009 (Type B)
- Complex concrete elements, e.g. piled basement floor slabs, walls poured against secant, contiguous and sheet piles
- Combined system designs (Type A+B with GCP Preprufe® membranes, Type B+C with Hydroduct® cavity drain system and Type A+B+C triple protection with all BS 8102:2009 combined)
- Water retaining structures
- Swimming pools
- Lift pits
- Tunnels

EXAMPLES OF ADPRUFE® PROJECTS

| | |
|--------------------------------------|-------------|
| Crowne Plaza (T4) LHR | Hounslow |
| BBC Wood Lane | London |
| Cadogan Hotel | London |
| Camden Lock Village - Building A & B | London |
| Crossrail - Farringdon Station | London |
| Downpatrick Leisure Centre | Downpatrick |
| Imperial West | London |
| Kings College Music School | London |
| London Fruit and Wool Exchange | London |
| LVV, ICAIR & RTC Buildings | Sheffield |

| | |
|--|---------------------|
| North Hanover Street, Student Residence | Glasgow |
| Queens College Library extension | Oxford |
| Riverwalk House | London |
| St Andrew Square | Edinburgh |
| Sugar Quay | London |
| The Guildhall School of Music & Drama | London |
| University of Ulster C and D | Belfast |
| VITA Strawberry Place Phase One | Newcastle upon Tyne |
| Westfield Shopping Centre - tunnel and basement car park | London |

ASK FOR THE ADPRUFE® ADVANTAGE

For enquiries, information and case studies please visit gcpat.com

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ADPRUFE® System: Concrete Sealed, Joints Protected, Knowledge Applied

GCP PEDIGREE

GCP Applied Technologies, formerly known as Grace Construction Products, is a global leader in specialty concrete chemicals and waterproofing systems. Combining more than 80 years of concrete admixture innovation with over 50 years experience of structural waterproofing and jointing, GCP's ADPRUFE® System comprises an industry leading range of high performance products and technical service to match.



THE UNIQUE ADPRUFE® TECHNOLOGY

Adprufe® 100 is a patented, highly concentrated liquid admixture that disperses completely in the mix to strengthen the concrete performance, reducing both drying shrinkage and water absorption to produce integrally waterproofed concrete that is easy to work with. Compared with conventional powder or thick liquid products, low dosage Adprufe® 100 is efficient and practical and minimizes the need for post injection work on the jobsite saving time and complexity for busy contractors.

HOW IT WORKS

By uniquely combining water repellent and shrinkage reduction technologies, GCP's Adprufe® 100 provides a pore blocking system together with a proven and award winning chemistry that reduces the surface tension of the menisci in the millions of pores in the hardened concrete, thus significantly reducing the shrinkage strain. Lower shrinkage results in reduced incidence of cracking in restrained concrete, extensively improving the water resistance of the structure.

THE ADPRUFE® ADVANTAGE

Integral Shrinkage Reducer for Fewer, Smaller Cracks

More than 50% reduction in drying shrinkage from patented admixture technology

Low Permeability Concrete

Over 50% reduction in water absorption, water penetration and water vapour permeability

Joints Actively Sealed

The most vulnerable points of the structure sealed with a range of advanced hydro-expansive or PVC waterstop solutions

GCP Applied Knowledge and Assurance

From design assistance to site support decades of waterproofing and concrete expertise at your service.



Technical Support & Assurance

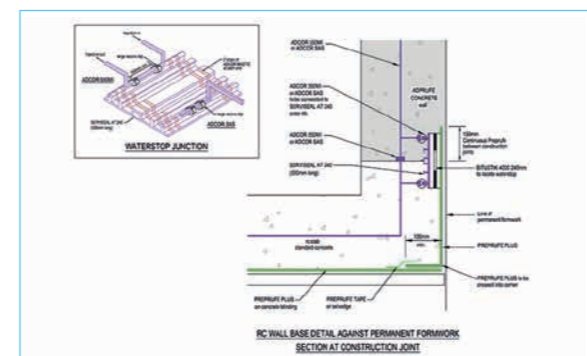
GCP'S TECHNICAL EXPERTISE FROM PROJECT PLANNING THROUGH COMPLETION

GCP's team of technical experts are committed to ensuring your project runs smoothly from design to concrete pour. GCP brings global relationships, manufacturing infrastructure, knowledge of best practices and extensive experience with the complexities of construction and concrete technology to large and small projects.

4 STEPS TO QUALITY ASSURANCE

1. DESIGN SUPPORT

- Technical guidance to structural design teams
- Advice on relevant British Standards and design guides for basement construction and protection from water ingress.
- Standard and/or project specific waterproofing detail drawings.



2. CONCRETE MIX GUIDANCE

Advice on concrete mix optimization and confirmation of critical admixture aspects such as:

- Mix designs
- Water Cement Ratio
- Adprufe® 100 Dosage



3. PRE-CONCRETING CHECKS

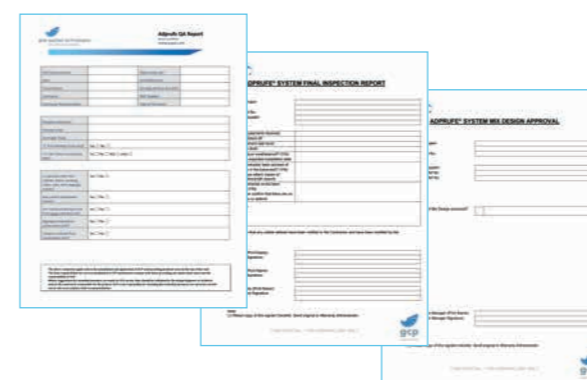
GCP completes a check sheet with the contractor to confirm crucial aspects such as:

- Reinforced concrete has been designed to the correct industry standards.
- Maximum design crack width is 0.3 mm.
- Continuity of concrete structure



4. POST CONCRETING INSPECTION

GCP inspects quality of placed concrete and joints to provide a completion report.



PRODUCT PERFORMANCE WARRANTY

As the industry leader in both concrete and waterproofing technologies, GCP provides a product performance warranty for the BBA certified ADPRUFE® System guaranteeing peace of mind for contractors. Details can be discussed with your GCP representative.

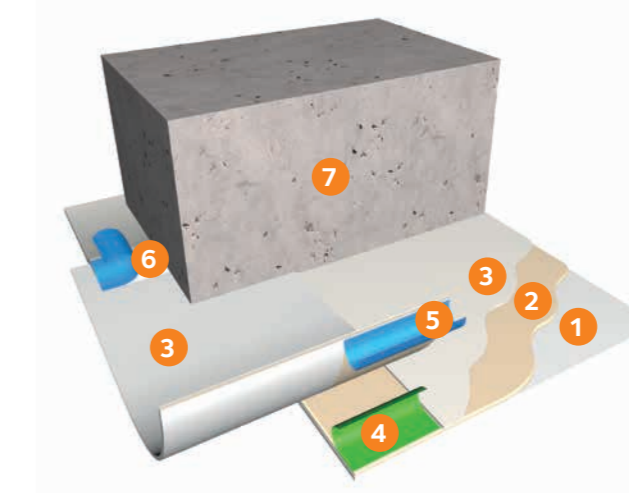
BS 8102:2009 Combined Protection Systems using ADPRUFE® Concrete

GCP offers a complete BBA certified solution for BS 8102:2009 and meets the requirements of NHBC Chapter 5.4 combined system waterproofing design.

GCP helps solve the most critical basement waterproofing problems easily from a single source. For Type A+B: Adprufe® in combination with GCP's proven Preprufe® fully bonded membrane technology and Type B+C: Adprufe® with Hydroduct® cavity drain systems

Combined Protection System for Design Type A+B

Adprufe® Concrete & Preprufe® Plus Waterproofing Membrane



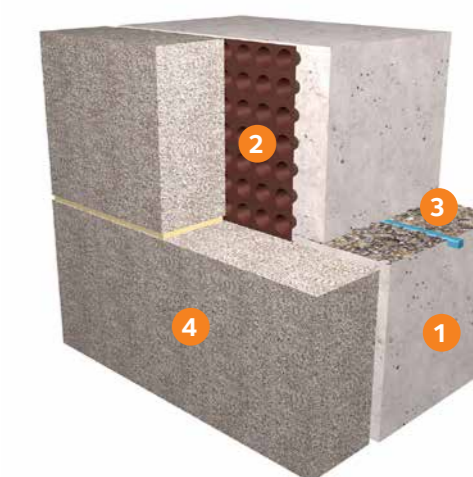
1. Durable and flexible HDPE membrane
2. Continuous layer of waterproofing adhesive
3. Patented non-absorbent surface coating
4. & 5. Ziaplast™ adhesive layers and liners
6. Preprufe® Tape for detailing
7. Watertight concrete with Adprufe® 100

For waterproofing and protection of slabs and confined walls below ground, Preprufe® Plus membranes develop an integral watertight adhesive bond to poured concrete to prevent water migration. Please see Preprufe® Plus datasheet for details.



Combined Protection System for Design Type B+C

Adprufe® Concrete & Hydroduct® CF Cavity Drainage



1. Watertight concrete with Adprufe® 100
2. Cavity drainage with Hydroduct® CF
3. Adcor® Hydrophilic Strip for Construction Joints
4. Internal blockwork lining wall

Hydroduct® CF is a high density polyethylene combined cavity former and vapour barrier for drained basement construction. It is highly efficient and cost effective. When installed against the internal face of concrete floors and walls Hydroduct® CF will provide a continuous drainage path. Please see Hydroduct® datasheets for details.

