



# Advanced system for integrally watertight concrete structures

**ADPRUFE<sup>®</sup>**  
ADVANCED LIQUID ADMIXTURES SYSTEM

UK and Ireland

# ADPRUFE® Liquid Waterproofing Admixtures System

- **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 and penetrations
- **SERVISEAL® AT and 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®** advanced admixtures system is quality concrete supplied with **ADPRUFE® 100** liquid admixtures and **ADVA®** high performance superplasticisers. This combination of admixtures addresses concrete workability, shrinkage cracks and concrete joints of conventional integrally waterproofed structures to compact concrete easier with good consistency and a low water/cement ratio. The result is fewer and narrower cracks promoting autogenous healing. **ADPRUFE® 100** liquid admixture is a highly active product with a considerably lower dosage than other liquid systems and is an easy to mix liquid enabling excellent dispersion.

SEALED CONCRETE ✓

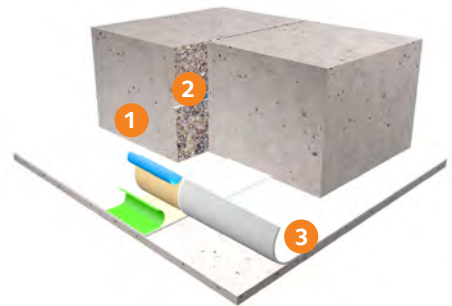
## Active Joint Protection

By their nature, concrete joints are the most vulnerable part of an integrally waterproofed structure. The **ADPRUFE®** admixtures system features advanced active waterstop technology, backed by expert problem solving and a customised design service. The system also includes solutions for expansion joint for concrete and joint waterproofing protection.

### ADCOR® SYSTEM FOR CONSTRUCTION JOINTS AND PENETRATIONS

The **ADCOR®** hydrophilic waterstop system 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, the **ADCOR® MI** system, offers the advantages of both a pre-applied barrier and a post-injected waterstop system.

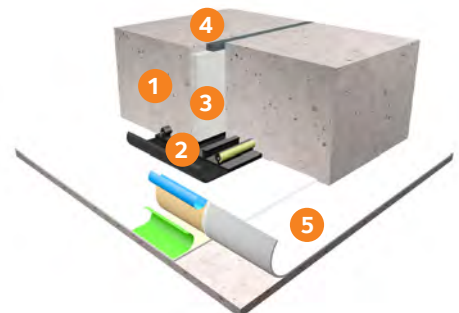
1. Watertight concrete with **ADPRUFE® 100** liquid admixture
2. **ADCOR®** hydrophilic waterstop system for Construction Joints
3. **PREPRUFE® Plus** waterproofing membrane (if combined protection is required)



### 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..

1. Watertight concrete with **ADPRUFE® 100** liquid admixture
2. **AT SYSTEM** for Expansion Joints
3. **AEROFIL® 2** polyethylene filler for movement joints
4. **PARASEAL®** pouring grade polysulphide sealant
5. **PREPRUFE® Plus** waterproofing membrane (if combined protection is required)

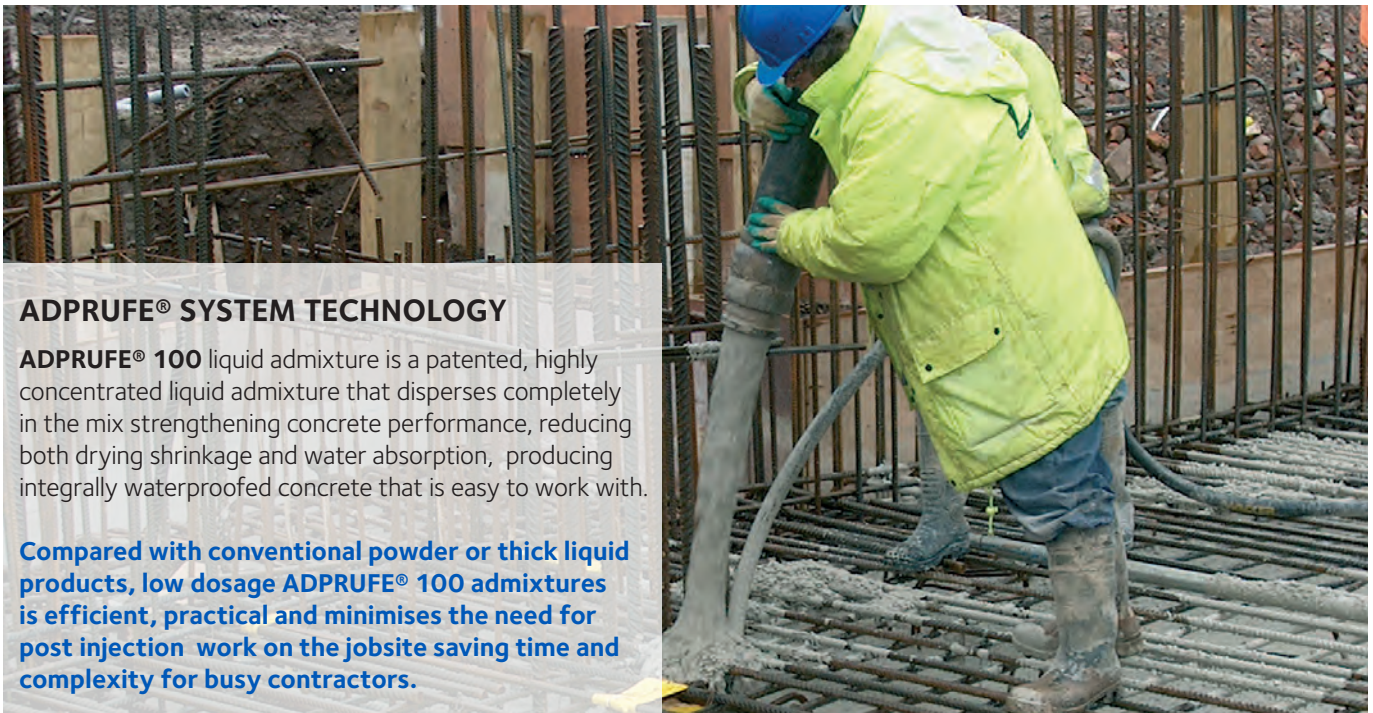


PROTECTED JOINTS ✓



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

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



## ADPRUFE® SYSTEM TECHNOLOGY

**ADPRUFE® 100** liquid admixture is a patented, highly concentrated liquid admixture that disperses completely in the mix strengthening concrete performance, reducing both drying shrinkage and water absorption, producing integrally waterproofed concrete that is easy to work with.

**Compared with conventional powder or thick liquid products, low dosage ADPRUFE® 100 admixtures is efficient, practical and minimises 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** liquid admixture provides a pore blocking system that reduces the surface tension of the menisci in the millions of pores of hardened concrete, thus significantly reducing shrinkage strain. Lower shrinkage results in reduced incidence of cracking in restrained concrete, extensively improving the water resistance of the structure.

## ADPRUFE® SYSTEM ADVANTAGE

### Integral shrinkage reducer

More than 50% reduction in drying shrinkage from patented admixture technology resulting in fewer and smaller cracks

### Low permeability concrete

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

### Actively sealed joints

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

### Technical expertise, applied knowledge and support

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

### Proven technology

Long track record of proven success



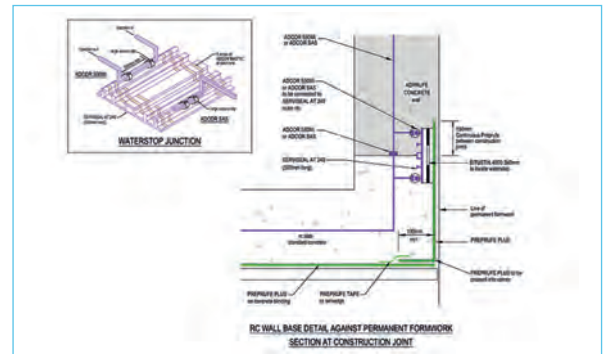
# Technical Support From Project Planning to Completion

GCP is committed to helping make your project run smoothly from design to concrete pour. Global relationships, manufacturing infrastructure, and extensive experience with the complexities of construction and concrete technology for large and small projects alike bring layers of value to our customers.

## 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 optimisation and evaluation of critical admixtures:

- **ADPRUFE® 100** admixture dosage
- Water cement ratio
- Mix designs

### 3. PRE-CONCRETING CHECKS

A comprehensive check list is completed with the contractor to confirm crucial aspects including:

- 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

Inspection report to confirm quality of placed concrete and joints.



## 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.

# BS 8102:2009 Combined Protection Systems using ADPRUFE® Concrete

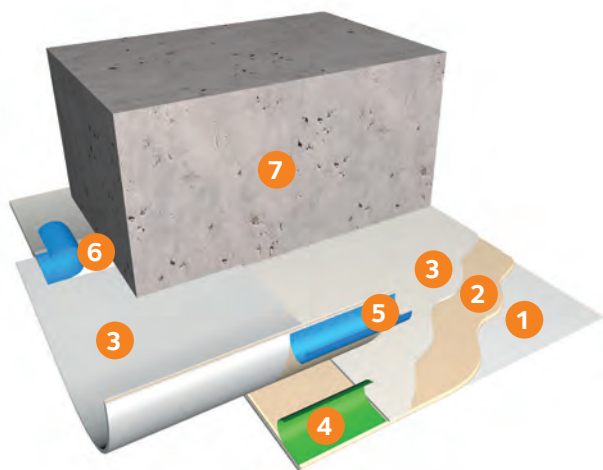
GCP offers a complete BBA certified solution for BS 8102:2009 and meets the requirements of NHBC Chapter 5.4 combined system waterproofing design.

GCP helps to solve critical basement waterproofing challenges from a single source.

- Type A+B: **ADPRUFE®** admixtures in combination with proven **PREPRUFE®** Plus fully bonded membrane technology.
- Type B+C: **ADPRUFE®** admixtures with proven **HYDRODUCT®** cavity drain systems.

## Combined Protection System for Design Type A+B

### ADPRUFE® liquid admixture and PREPRUFE® Plus waterproofing membrane

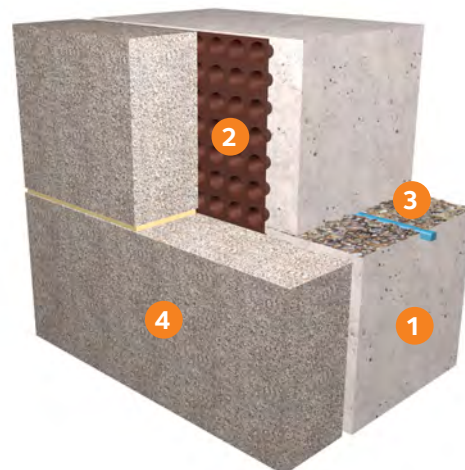


1. Durable and flexible HDPE membrane
2. Continuous layer of waterproofing adhesive
3. Patented non-absorbent surface coating
- 4.-5. Ziplap™ adhesive layers and liners
6. PREPRUFE® Tape for detailing
7. Watertight concrete with ADPRUFE® 100

For waterproofing and protection of slabs and confined walls below ground, **PREPRUFE®** Plus membranes creates an integral watertight adhesive bond to poured concrete to prevent water migration.

## Combined Protection System for Design Type B+C

### ADPRUFE® concrete admixture and HYDRODUCT® CF cavity drainage



1. Watertight concrete with ADPRUFE® 100 liquid admixture
2. Cavity drainage with HYDRODUCT® CF cavity drainage
3. ADCOR® hydrophilic strip for construction joints
4. Internal blockwork lining wall

**HYDRODUCT® CF** cavity drainage is an efficient and cost effective, high density polyethylene combined cavity former and vapour barrier for drained basement construction. When installed against the internal face of concrete floors and walls, **HYDRODUCT® CF** cavity drainage will provide a continuous drainage path.





# Integrally Waterproofed Concrete with **ADPRUFE®** Liquid Waterproofing Admixture System

## Backed by 80+ Years of Admixture experience

GCP Applied Technologies offer solutions for nearly every aspect of the built environment. GCP has improved the quality of billions of cubic metres 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 <b>PREPRUFE®</b> 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

**ADPRUFE® ADVANCED SYSTEM ADVANTAGE Visit [gcpat.com](http://gcpat.com) for details and data sheets**

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ADVANTAGE