



# DCP POLYURETHANE TECHNOLOGY WATERPROOFING AND SEALANTS



expertise



quality



full range

# About DCP




**Don Construction Products (DCP)** has accumulated over 85 years of experience in developing, manufacturing and marketing innovative construction materials. DCP has operations in Europe, Africa, Middle East and Asia, with 15 manufacturing locations and a distribution network to over 25 countries.



## DCP Timeline

- 1927 Company set up as Akis Chemicals Company Ltd., in Doncaster, UK.
- 1928 Company merged with Francois Chemicals Ltd.
- 1986 Management buyout and the company rebranded as Don Construction Chemicals.
- 1997 F. Ball and Co. Ltd., UK's leading manufacturer of flooring adhesives and floor preparation materials acquired Don Construction Chemicals and renamed the company as Don Construction Products (DCP).
- 2000 G.R.A.B. Resins of the UK, a 1995 F. Ball and Co. Ltd. acquisition, is integrated into DCP.
- 2005 DCP signed a license agreement with Ayla Construction Chemicals for the Middle East.
- 2010 DCP acquired Ayla Construction Chemicals in the Middle East.
- 2013 Backward integration into 2<sup>nd</sup> Generation Concrete Admixtures.
- 2014 Backward integration into 3<sup>rd</sup> and 4<sup>th</sup> Generation Concrete Admixtures.
- 2016 Backward integration into Polyurethane Polymerisation.

## DCP Commitments

-  **Expertise** DCP provides exceptional level of expertise and support services both at the office and on site.
-  **Quality** All products are produced to comply with the best relevant international standards.
-  **Full Range** DCP offers a comprehensive range of products covering a wide range of civil and aesthetic requirements of construction projects.

## Full Product Range

The focus of our full product range below caters to our 4 core business units: Concrete & Cement Technology, Underground Construction Technology, Construction Projects Materials Technology and Building Finishing Products.



Concrete Admixtures



Surface Treatments



Grouts & Anchors



Concrete Repair



Flooring Systems



Protective Coatings



Sealants & Joints



Waterproofing



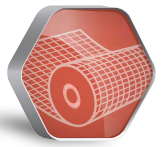
Adhesives



Tile Adhesives & Grouts



Building Finishing Products



Structural Strengthening

## DCP's HSE Commitment

- Do everything reasonably practicable to prevent accidents, injuries and work related ill-health.
- Comply with, and where practicable, exceed all applicable legislation, adopted codes of practice and other requirements. Where none exist, set and adhere to stringent standards based on DCP's best practices.
- Actively involve and encourage all employees in the achievement of DCP's objectives.
- Appoint competent people to assist in meeting statutory duties including external HSE performance.

## DCP's Environment Commitment

Our commitment to the environment, including low CO<sub>2</sub> footprint and low dust emissions, enables us to operate production close to residential areas where the most stringent environmental regulations exist. We commit unreservedly to this directive since these residential areas are our homes and backyards.

# Polyurethane Technology

**Polyurethane (PU)** is a material that has a unique chemical nature and composition which make it extremely versatile and allow it to exist in various forms. It can be shaped and moulded to serve a wide variety of applications and create consumer and industrial products that make our lives more convenient and environmentally friendly.

Polyurethane can be used for applications such as:

- Waterproofing
- Adhesives
- Sealants
- Insulation
- Coatings

The benefits of using polyurethane technology are tremendous. Polyurethane improves adhesion and durability while providing a seamless finish in waterproofing products. Polyurethane sealants result in tighter seals. As a coating, polyurethane enhances a product's aesthetics and durability. In adhesives, it provides stronger bonding properties and in elastomers, it offers excellent stress recovery and resistance to severe environmental factors.

DCP offers a wide range of polyurethane products to meet your construction needs. DCP's polyurethane-based waterproofing and sealants product ranges include:

- **Aquathane Range for waterproofing.**
- **Flexseal PU Range for sealants.**



## Polyurethane Waterproofing

Polyurethane waterproofing products can be used for waterproofing and protecting roofs, bathrooms, wet areas, irrigation channels, foundations, cementitious substrates and more. They are also beneficial for application on geometrically complicated connections that have outlets or upturns.

**Aquathane Range** is a liquid-applied waterproofing membrane based on pure high-quality polyurethane resins. It produces a tough rubber-like seamless finish with excellent surface adhesion to most types of substrates and excellent elasticity.

### Advantages:

- Fast curing
- Durable
- Easy to apply
- UV and chemical resistant



## Polyurethane Sealants

Joints are a main part of construction and their performance is critical to the integrity of structures. Joints can be found between concrete slabs, floor and wall connections and more. It is important to seal any gaps to prevent the passage of air, water or chemicals, provide insulation and enhance the aesthetics of the structure.

**Flexseal PU Range** offers different advantages based on your needs. The various products available offer solutions for use in general sealing, contraction and expansion joints, joints in traffic areas and joints that need chemical or oil resistance.

### Advantages:

- Outdoor and indoor application
- Traffic areas
- Waterproof
- Weather resistance





## Aquathane R100/R200

high quality, single component, liquid applied polyurethane coating that cures to form a strong elastic waterproofing membrane with excellent adhesion to different substrates. These products are based on pure elastomeric hydrophobic polyurethane resin with special inorganic filler that provide the material with excellent weathering resistance properties.

### Advantages

- Crack bridging capabilities
- Excellent mechanical properties, high tensile and tear strength
- Provides moisture vapour transmission
- Excellent adhesion to almost any surface
- Good tear resistance; suitable for foot traffic
- Provides good chemical resistance
- Excellent thermal resistance and service temperature
- Easy application
- Easy repair of mechanical damage in the membrane
- Reflects much of the solar energy reducing the internal temperature of the building

### Applications

- Roofs, bridge platforms and irrigation channels
- Light roofing made of metal or fibrous cement
- Verandas and balconies
- Wet areas (bathrooms and kitchens)



# Waterproofing: Wet Areas (Under Tiles)



## Aquathane PA100

quick-curing, one component, water based, acrylic modified polyurethane based on pure elastomeric hydrophobic resin. It produces a tough rubber-like seamless finish with excellent surface adhesion to most types of substrates and excellent elasticity.

## Advantages

- Excellent adhesion to almost any surface
- Resistant to peeling, chipping and separation
- One component; ready to use
- High tensile strength and elongation
- Crack bridging capabilities
- Good chemical resistance
- Excellent UV resistance

## Applications

Waterproofing wet areas (under tiles) such as:

- Bathroom
- Kitchens
- Balconies, verandas and terraces



# Waterproofing: Foundations



## Aquathane PP500/PUB100

liquid applied, one component, moisture curing, modified polyurethane based on pure elastomeric hydrophobic resin. When applied, these products produce a tough rubber-like seamless finish with excellent surface adhesion to most types of substrates and excellent elasticity.

Aquathane **PP500** is pitch-modified while Aquathane **PUB100** is pitch-free providing a more environmentally friendly waterproof coating.

## Advantages

- Provides excellent chemical resistance
- Excellent mechanical properties, high elongation, tensile, abrasion resistance and tear strength
- Provides a uniform, joint free and seamless membrane
- UV stable; does not harden or become brittle
- Provides excellent adhesion
- Easily applied by brush, squeegee blade or airless spray
- High service temperature range
- Thixotropic consistency, easily applied on vertical surfaces and complex shapes without running or bubbling



## Applications

- Foundations
- Retaining walls
- Roofs
- Vertical and horizontal substrates
- Planters
- Wet areas (under tiles)





# Sealants: General Purpose



## Flexseal PU425/PU440/SL445

one component polyurethane sealants that cure by reacting with air humidity to form a tough and highly elastic sealant.

### Advantages

- Single component
- Excellent aging resistance
- High movement accommodation factor (25%)
- Excellent weatherability
- Abrasion resistance
- Excellent adhesion without the need for priming
- High service temperature range
- Good resistance to micro-organisms and a variety of chemicals

### Applications

- General sealing of construction and expansion joints
- Precast concrete elements
- Indoor and outdoor applications
- For joints between:
  - concrete
  - aluminium
  - gypsum boards
  - wood
  - steel
  - others
  - marble
  - ceramic

## Flexseal PU425

non-sag general use polyurethane sealant for joints in vertical, horizontal and light traffic areas.



## Flexseal PU440

non-sag polyurethane sealant specially formulated for joints in high traffic areas due to its high durability and abrasion resistance.

## Flexseal SL445

easy to apply, self-levelling polyurethane sealant designed for use in horizontal joints to form flexible and resistant joints.



expertise



quality



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## Flexseal PP800/PF850

two component, chemical curing, cold applied, fuel and oil resistant, modified polyurethane sealants designed for use in all types of concrete pavement joints and have excellent adhesion properties to asphalt substrates.

Flexseal **PP800** is pitch-modified polyurethane while Flexseal **PF850** is pitch-free providing a more environmentally friendly sealant.

## Advantages

- Fuel and oil resistant
- Excellent chemical resistance to a wide range of mild alkalis, diluted acids and solvents
- Pourable and self-levelling
- Suitable for all climate conditions; weathering and UV resistant
- Excellent movement accommodation in butt and lap joints



## Applications

Sealing all types of joints in:

- Airport runways and aprons
- Car parks and traffic decks
- Warehouses, oil terminals, docks and harbours
- Sewage treatment plants



**DCP is dedicated to providing unparalleled customer service and support throughout every stage of the construction process. The DCP team works hand-in-hand with all parties to ensure the completion of the project with the utmost consideration and quality control.**

DCP offices all over the world have local sales and technical service teams ready to assist you. Our research and development centres work continuously to ensure we are using the latest technology to deliver the best quality of products and services to consumers. DCP offers:

- Properly equipped laboratories in every country to serve clients.
- Testing and evaluation carried out in each country to ensure quality of products.



- Technical site support.
- Understanding all business units from the client's point of view.
- Continuous training programs to expand staff and customer knowledge.





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[www.dcp-int.com](http://www.dcp-int.com)