

---

# SOLUTION GUIDE FOR TRANSPORT INFRASTRUCTURES

---



**SYSTEMARDEX**  
PREMIUM PERFORMANCE







# SOLUTIONS FOR BRIDGES

## Segmental Bonding Paste

This material is applied to segment joints, it provides a watertight seal and prevents the intrusion of water and de-icing salts. At the same time, it prevents the grout from bleeding across the joints. In the long run, it minimises structure failure and reduces repair costs.

### ARDEX CE 501 Segmental Bonding Adhesive

A two-component, epoxy-based adhesive for bonding of concrete elements. The product is tolerant to dampness, highly thixotropic and it complies to FIP 9/2 test standard.

## Load Bearing Grout

The grout provides load bearing support and allows uniform load transfer between the substructure and superstructure of a bridge.



### QUICSEAL 511 Non-Shrink Grout PG

A pre-packed, dual-shrinkage compensated cementitious grout that has high fluidity, low permeability and gives a high ultimate compressive strength.

### ARDEX CE 828 Structural Micro Concrete

A pre-packed, dual-shrinkage compensated cementitious grout that has low permeability to chloride ingress, gives a high ultimate compressive strength and allows deep pour as a micro-concrete.

## Post Tensioning Grout

When using the pre-stressing construction method, a post tensioning grout is required to fill all the voids around the tendons to protect them from corrosion.



### ARDEX CE 901 / 902 Ultra Flow PT Grout / Additive

Both the pre-packed powder and additive form of this grouting material complies to BS EN447 test standard. This grout is highly fluid, has negligible bleeding and does not cause segregation. It is a very dense material which helps to fully encapsulate the duct and protect the tendons from corrosion. It also has low permeability and is free of metallic expansion agent, thus eliminating the risk of hydrogen embrittlement.

## Concrete Curing Compound

This is a moisture retaining coating that helps to improve curing of concrete by minimising water loss during curing, thus resulting in lesser cracks on the concrete surface.

### ARDEX P 507 Water-Based Primer and Curing Agent

ARDEX P 507 is easy to apply by spray or roller, and can receive subsequent topping or coating without mechanical removal.



## Concrete Repair Grout

---

For the long-term durability of concrete elements, it is important to repair it with the right product at the stage of discovery and prevent further deterioration.

### **ARDEX CE 826** **Rapid Curing Structural Micro Concrete**

ARDEX CE 826 is a pourable, fast setting product suitable for civil engineering applications where high early strength is required. Incorporates special cement systems, blended aggregates and advanced additives to form a micro concrete which is C Class dual shrinkage compensated and chloride free. The addition of aggregate allows the product to be batch mixed in agitators for large volume applications such as ports, roads and runway repairs including airport lighting trenches. The product is chloride and sulphate resistant and has been used on infrastructure projects requiring fast return to service.

### **QUICSEAL 510 Non-Shrink Grout /** **511 Non-Shrink Grout PG**



Highly flowable and pumpable grouts that are suitable for:

- Honeycomb repair
- Bridge bearing plates
- Pre-cast concrete panel joints
- Stanchion baseplates
- Tie-bolt holes



## Structural Repair Mortar

---

A failure to repair a structural element will definitely pose danger to the overall safety of users.

### **ARDEX CE 707** **Sprayable High Build Shotcrete**

ARDEX CE 707 incorporates graded aggregates and advanced cement additives to create interlocking during dry spraying to build depths of several hundred millimetres in one pass. This creates a structural repair mortar with low drying shrinkage, low electrical resistivity and ultra-low chloride permeability.

### **QUICSEAL 515** **Polymer Modified Structural Repair Mortar**

QUICSEAL 515 is a fibre reinforced, thixotropic repair mortar. It has ultra low shrinkage, high ultimate compressive strength and allows high build of material, up to 40mm per layer.

## Anti-Carbonation Coating

---

When exposed to the carbon dioxide in the atmosphere, or in the presence of moisture or water, concrete structures may go through the process of carbonation in a less alkaline state around the reinforcing steel, resulting in corrosion. This can pose a great danger to the integrity of the structure. Anti-carbonation coatings are surface treatments that have a high resistance to carbon dioxide, thus protecting the concrete from carbonation.

### **ARDEX WPM 335** **External Anti-Carbonation Façade Membrane**

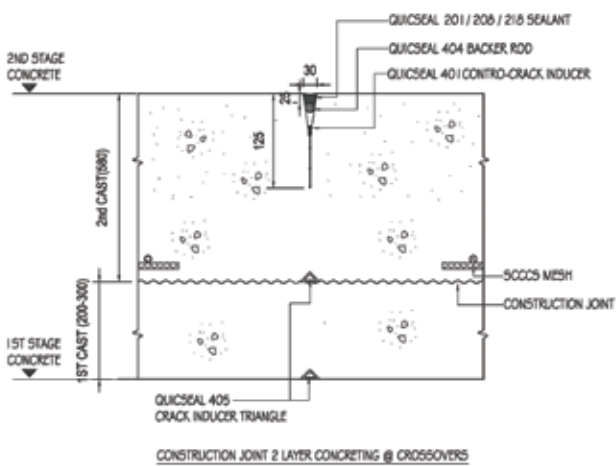
A semi-permeable membrane which allows wall surfaces to breathe, and prevents moisture, salt, chloride, and carbon dioxide attack. It inhibits fungi and algae growth, provides excellent UV resistance and long term protection from atmospheric elements. Suitable for use at pier, pier caps, and viaduct segments.





# SOLUTIONS FOR RAILWAY TRACKS & RIGID PAVEMENTS

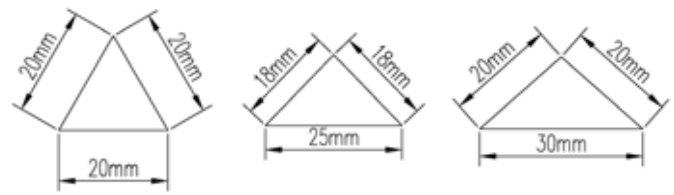
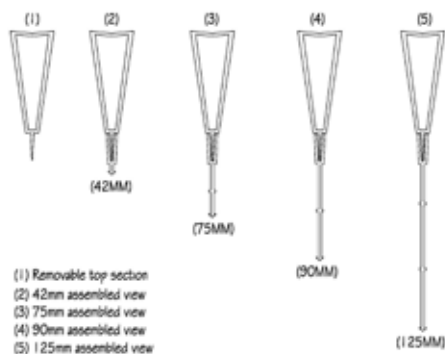
## Crack Inducer



Crack inducers, as the name suggests, are pre-formed materials for controlled crack inducement and joint forming in concrete paved areas in railway tracks, airport aprons etc. Primarily, it helps to reduce the risks of random cracking in concrete.

### QUICSEAL 401 Contro-Crac

It is made of high impact rigid, polyvinyl chloride (PVC) material, and is usually inserted into the joint groove while the concrete is still wet. It comes in 4 different depths – 42mm, 75mm, 90mm, and 125mm and the depth to choose is typically 1/3 to 1/4 of the overall depth of slab.



### QUICSEAL 405 Crack Inducer Triangle

It is manufactured from specially developed unplasticized polyvinyl chloride (UPVC) materials very high impact strength and weather resistant properties. The installation is a simple 'stick them on' application. Simply lay the QUICSEAL 405 and use cement mortar to hold it in position. Proceed to complete the concreting of the paved areas once the holding mortar sets.

## Joint Filler

When forming a structural construction or expansion joints, joint fillers are necessary to fill up the gap between two concrete structures.

### QUICSEAL 404 Backer Rod

A circular closed cell polyethylene foam designed as a back-up material for cold-applied joint sealants. It is ideal as a bond breaker for joint sealants as they do not adhere to the material. When used as back-up material, it acts as a bond breaker at the back of the seal while providing an ideal convex strain profile to receive the sealant, thereby preventing the build up of additional stress at the contact interface and on the sealant during joint movement. It is extruded to various diameters to accommodate a range of joint widths.

## QUICSEAL 402 Bitumen Impregnated Fibreboard

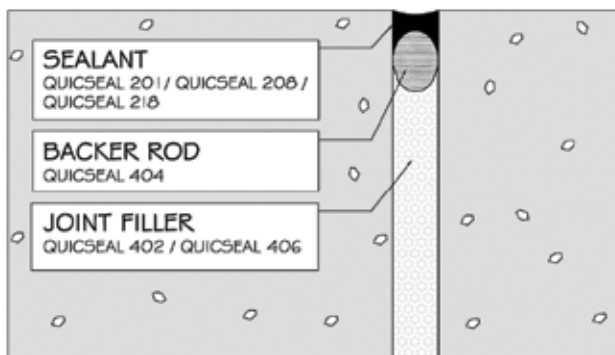
A compressible, non-extruding bitumen impregnated fibreboard for forming structural expansion joints in both concrete structures and precast concrete construction. It is installed against existing concrete at columns and against adjacent structures or flat work before the placement of the subsequent concrete.

## QUICSEAL 406 Joint Filler Board

A rot-proof, non-absorbent polyethylene joint filler for forming expansion joints in concrete, brickwork and blockwork.

## Joint Sealant

Joint sealing is important to minimise infiltration of surface water, isolate joint from fuels and de-icing chemicals, protect against spalling and dowel bar corrosion. It also helps to prevent incompressible (sand or hard particles) from entering the joint, and Foreign Object Debris (FOD) issues, especially in the airfields. Finally, it reduces pavement joint blow-ups, and if the correct joint sealant is chosen, it enhances the overall durability of the joints.



## QUICSEAL 201 One Part Moisture Cure P.U. Sealant

A low modulus, elastomeric polyurethane (PU) based sealant that complies to ASTM C920 test standard. It is typically used as a construction sealant for cementitious building materials in precast concrete panels, window and door frames etc. This product is easily gun-able and can be painted over.

## QUICSEAL 208 Two Part Polysulphide Joint Sealant

A cold applied, two-component polysulphide-based sealant that is fuel, oil, hydraulic fluid and chemical resistant. The material complies to ASTM C920 test standard and suitable for use in vehicular trafficable areas, chemical plants, roof concrete panels, concrete pavements etc.

## QUICSEAL 218 Elastomeric Pavement Joint Sealant

A cold applied, self-levelling, two-component polysulphide-based sealant that is jet fuel and blast resistant. The material complies to BS EN 14188-2, BS 5212 and ASTM C920 test standards. The product has a long pot life and suitable for use for concrete pavements in airfields, roads and bridges. The product can be easily mixed, applied using QUICSEAL Universal Mixer, and QUICSEAL Application Machine, thus improving productivity.

## Cycling Path Coating System

### ARDEX CE 601 High Strength Coloured Coating

A single component, water-based road marking material composed of well graded aggregates and color-fast synthetic resins and pigments. When cured, it forms an elastomeric compound, which imparts good skid resistance, colour stability and superior adhesion on both concrete and asphalt surfaces. The color coating system is suitable on footpath, cycling tracks and pavements.

## Semi-Rigid Pavement

### ARDEX CE 910 Rapid Curing Semi-Rigid Pavement Grout

A one-component rapid curing grout which requires the addition of water to provide high resistance to wear and tear resulting from traffic loading. ARDEX CE 910 contains special cement systems and additives to significantly reduce the risk of shrinkage cracking and imparts high fluidity to fill the voids of the porous asphalt completely. It is suitable to use in a wide variety of challenging pumping and placement applications.



## Singapore

### ARDEX-QUICSEAL SINGAPORE PTE. LTD.

No. 7 Eunos Avenue 8A  
Singapore 409460  
Tel: +65 6861 7700  
Fax: +65 6741 4666  
Email: sales@ardex-quickseal.com

### SINGAPORE PLANT

No. 26 Tuas Avenue 4  
Singapore 639376  
Fax: +65 6862 3381

## Malaysia

### ARDEX QUICSEAL MALAYSIA SDN. BHD.

#### (Sales & Marketing Office)

72-2, Jalan Puteri 2/2  
Bandar Puteri 47100,  
Puchong, Selangor Darul Ehsan  
Malaysia  
Tel: +603 8051 0311  
Email: sales.malaysia@ardex-quickseal.com

### MALAYSIA PLANT

No 15 Jalan Desa Tropika 2/2,  
Taman Perindustrian Tropika,  
81800 Ulu Tiram, Johor  
Tel: +607 8620 833, +607 8620 633  
Fax: +607 8620 793

## Thailand

### ARDEX (THAILAND) CO., LTD

969 2nd Floor Moo, 13, Soi 45, Bangna-Trad Road Bangkaew,  
Bangplee, Samutprakarn 10540  
Thailand  
Tel: +66 2316 3069  
Fax: +66 2316 3075  
Email: sales@ardex.co.th

## Vietnam

Mobile: +84 901 351 308  
Email: sales@ardex-quickseal.com

## PRODUCT LIST

<b>QUICSEAL 201</b>	One Part Moisture Cure P.U. Sealant
<b>QUICSEAL 208</b>	Two Part Polysulphide Joint Sealant
<b>QUICSEAL 218</b>	Elastomeric Pavement Joint Sealant
<b>QUICSEAL 510</b>	Non-Shrink Grout
<b>QUICSEAL 511</b>	Non-Shrink Grout PG
<b>QUICSEAL 515</b>	Polymer Modified Structural Repair Mortar
<b>ARDEX P 507</b>	Water-Based Primer and Curing Agent
<b>ARDEX CE 501</b>	Segmental Bonding Adhesive
<b>ARDEX CE 601</b>	High Strength Coloured Coating
<b>ARDEX CE 707</b>	Sprayable High Build Shotcrete
<b>ARDEX CE 828</b>	Structural Micro Concrete
<b>ARDEX CE 826</b>	Rapid Curing Structural Micro Concrete
<b>ARDEX CE 901</b>	Ultra Flow PT Grout
<b>ARDEX CE 902</b>	Ultra Flow PT Grout Additive
<b>ARDEX CE 910</b>	Rapid Curing Semi-Rigid Pavement Grout

PRODUCT TYPE	TYPICAL USE	PRODUCT NAME
<b>Post Tension</b>	Bridges, elevated slabs (buildings)	ARDEX CE 901, ARDEX CE 902
<b>Bridge Bearing</b>	Bridges, Flyovers	QUICSEAL 511, ARDEX CE 828
<b>Pressure Grouting</b>	RC Structures	QUICSEAL 510, QUICSEAL 511, ARDEX CE 828
<b>Pavement Repair</b>	Rigid Pavement, RC Structures	ARDEX CE 826, ARDEX CE 828
<b>Segmental Bonding Adhesive</b>	Segmental Bridges	ARDEX CE 501
<b>Cycling Path Coating</b>	Asphalt Concrete, Concrete	ARDEX CE 601
<b>Anti-Carbonation Coating</b>	Bridges, Flyovers, Parking garages, Industrial Structures	ARDEX WPM 335
<b>Repair Mortar &amp; Shotcrete</b>	Marine Structures, RC Structures	ARDEX CE 828 ARDEX CE 707
<b>Prime &amp; Cure</b>	Primer & Curing Compound	ARDEX P 507
<b>Control Crack Inducement</b>	Expansion/Contraction Joint	QUICSEAL 401, QUICSEAL 405
<b>Joint Filler</b>	Forms Joint	QUICSEAL 402, QUICSEAL 404, QUICSEAL 406
<b>Joint Sealing</b>	Seals Joint	QUICSEAL 201, QUICSEAL 208, QUICSEAL 218
<b>Sem-Rigid Pavement Grout</b>	Semi-Rigid Pavement	ARDEX CE 910

[www.ardex-quickseal.com](http://www.ardex-quickseal.com)



## SOLUTION GUIDE FOR TRANSPORT INFRASTRUCTURES

<https://ardex-quickseal.com>

