



ADMIXTURE SYSTEMS



**ONE STOP CHEMICAL
CONSTRUCTION SOLUTION**

Who We Are



**KIMIA
KONSTRUKSI
INDONESIA**

The trend in modern structure and architecture are leading to minimalism. Building Materials have big role to develop technology which are more effective, fast, economic and sustainable. There is a strong connection between function and artistic side of the building, the identity of the building. The identity of the building is significant like a brand for product, it differentiates the building among others.

Construction world, whether it is infrastructure, industrial, or building, need high standard of building materials with certain component for all requirement. High standard materials are only provided by the few manufacturers. It is possible to have accelerated and effortless work with high standard material to support and strengthen other elements so that the building become solid, sturdy, and durable. Conventional materials on the market are not enough to do such work.

Armed with the experience of working on various prestigious construction projects, **PT. Kimia Konstruksi Indonesia** focuses on producing high-quality Chemical Construction, made by Indonesians for construction and industry development in Indonesia and the world. Providing various facilities, ranging from consultation, investigation to solutions to procurement of materials and services such as Concrete Admixture, Concrete Repair, Crack Injection to Water Proofing. The presence of **PT. Kimia Konstruksi Indonesia** can help you to realize what was previously not feasible, be able and easy.

Good construction begins with high quality material. Consol is presented as Concrete Solution, a new advanced system that consist of varied quality products to provide your needs. The products that we offer are covering area in preparing, mixing, repairing, protecting, and any other specialty.

Our company are very concerned with customer needs. The products are formulated from direct project issues. Our curiosity makes us stronger to provide you with solutions for general to unique problems. Beside good quality products, our people are resourceful and ready to assist the customer with the best service.

Consol Solution System is already applied by many experts in Indonesia and has been recognized by the world. Our solution has been supporting many projects.

Chemical construction solution by Consol is formulated by experts to match the requirement and concentrated in chemical construction, repair, bonding, injection, and protective coating. Rather than focus on brand image, we solve problems in construction whether it is build new construction, maintenance, repair, and renovation.

Consol Admixture



Consol Admixture work synergically with material used in the batching plant. Material used on concrete such as cement and aggregates have different properties and it is become a challenge to mix with. Consol Admixture has wide range of products to match the certain type of material that is available in the batching plant. Consol Repair System provide solution to varied problems on construction such as crack, chipped, honeycomb, and many others. Our products have been known for its strength, durability and easy to use. Other than that, Consol Supporting products are our new superior innovation that we developed recently and still continue to get more research. Many Customers are loyal to our products because it is beneficial, applicable, and available with good service. Those are important for construction work these days because construction need high quality and in time finish. We saw those challenges and continue the innovation because innovation is primary in our business.

What is the Market Needs ?

Global Construction is uprising wether in Prominent Country or developed country. The opportunity for all contractors, batching plants, applicators, and manufactures are getting bigger each year. This situation leads to high competition with company rivals. Building without competitor itself need the rigorous calculation to maintain work and control cost so that in the end the profit is high enough for the company. Every construction company is still further to find ways for better construction work while suppress its cost.



Admixture System

Consol Admixture is formulated by experts to support all kind of requirement. We have wide range products so that we match different other material characteristic like cement, coarse aggregates and fine aggregates.

Slump Loss

High temperature may lead to rapid slump loss in ready mix concrete. To prevent the concrete from hardening, Consol Retarder Series react with cement particles. The cement particles are coated with our retarder to suppress the time of hardening, giving the concrete worker adequate time to place the mix.

Workability

All construction need concrete that easy to work with to fasten the work and need fewer workers. Consol give solution for builders to get fluid concrete without losing strength. Consol expertise has added high quality water reducer with good portfolio on superplasticizer and retarder.

Compressive Strength

The concrete design has developed to get higher strength while maintain its cost. Consol Superplasticizer is a ready to apply liquid additive to get high strength concrete.

Durability

Durable concrete is the final aim of every concrete making. There are many factors to monitor its process so the building will last for many years. But the first thing to consider is good material to mix concrete. All Consol Admixture is safe and follow all regulation to produces. In fact, water reducer by Consol help compacted the concrete capillary to keep the water stay out of the concrete. Durable concrete that used Consol Super plasticizer prevent water get to the strands and cause corrosion.

Shrinkage & Crack

Even though cracks are normal to concrete, the concrete that undergo shrinkage use to much water when mix. Excessive water must be reduced and it is better to use good admixture.



Consol Admixture Product



Consol Retard Series

Complies with ASTM C 494-92 Type D

Retarder and water reducer agent, use to delay concrete setting and increasing its strength. Consol Retard series is the best choice for ready-mix concrete, long distance concrete work, hot weather concrete, mass concrete, and pumped concrete.

Consol G series

Complies with ASTM C 494-92 Type G

Retarder and high-water reducer agent, use to delay concrete setting, increasing its strength, and can be used to make concrete more economic. Consol Retard series is the best choice for ready-mix concrete who want to gain initial and final strength.

Consol N Series

Complies with ASTM C 494-92 Type F

High water reducer agent, capable for reducing water up to 20% from concrete design. Consol N Series is a naphthalene base admixture, aim for increasing concrete initial and final strength, accelerate releasing time of concrete form work, increase concrete workability. It is compatible to use for ready-mix and precast plant.

Consol SS series

Complies with ASTM C 494-92 Type F

High range superplasticizer, capable for reducing water up to 40% from concrete design. Consol SS Series is a Polycarboxylate base admixture, aim for increasing concrete initial and finale strength, accelerate releasing time of concrete form work, increase concrete workability. It is compatible to use for ready-mix and precast plant. Due to its advanced performance, Consol SS Series is good for waterproofing concrete and self-compacting concrete.

Consol P series

Complies with ASTM C 494-92 Type F

High range superplasticizer, capable for reducing water up to 40% from concrete design. Consol P Series is a Polycarboxylate base admixture, aim for increasing concrete initial and finale strength, accelerate releasing time of concrete form work, increase concrete workability with better slump loss . It is compatible to use for ready-mix and precast plant. Due to its advanced performance, Consol P Series is good for waterproofing concrete and self-compacting concrete.

Consol FUME

Complies with ASTM C 1240-00

Micro fine Silica Powder, beneficial to increase concrete density, durability, and compressive concrete. Due to its particle size, Consol Fume is great for waterproofing concrete and chemical resistant concrete in aggressive area. Using Consol Fume will make your waterproofing concrete up to the next level, because it's not only block concrete capillary, but also increase initial and finale strength of your concrete.



Consol,[®] Your Chemical Constru



PRECAST

The newest technology in Superplasticizer by experience in Consol. Consol Solution System have many wide range of superplasticizer to different concrete requirements. Consol Superplasticizer has many benefit such as increase workability, strength, durability, and prevent shrinkage. Precast concrete that using Consol Superplasticizer are PCI Girder, sheet pile, square pile, spun pile etc.

Consol N Series : High range water reducer for economical used.

- Consol N 10 LC
- Consol N 15 RCA
- Consol N 7 RCA
- Consol Fume

Consol SS – Series :

- Consol SS - 8
- Consol SS - 30 N new 1
- Consol SS - 34

Consol P Series :

- Consol P 191 AS
- Consol P 100 ESP
- Consol P 100 HE



ction Solution

READY-MIX

Consol Retarder Series have solution for ready-mix that need enough time to transport from batching plant to construction site. We are ready to suggest which retarder to match your material condition. Consol Retarder Series contain sophisticated material, while conventional retarder doesn't have water reducer and form sediment on the bottom.

Consol Retarder Series :

- Consol SG
- Consol Retard 56 D
- Consol G3
- Consol Retard 600 D

Some special project might have needed Superplasticizer. Ready-mix must be aware to use another super plasticizer because it can affect the slump loss. Our experts have good solution and offers ready-mix friendly super plasticizer.

Consol Superplasticizer :

- Consol N 11 LN
- Consol SS - 8
- Consol P 200 R1
- Consol P 300-2
- Durable Concrete : Consol Fume



CONTRACTOR

Builder can also improve concrete performance for regular use or to solve specific issue. Nowadays, concrete technology offers so many solutions. Admixture give option to consider base on technical capabilities to improve concrete performance. Specific needs of infra- structure are accelerated concrete, mass concrete, watertight concrete, etc.

Consol Superplasticizer :

- Consol N 11 LN
- Consol SS – 8
- Consol P 200 R1
- Consol P 300-2
- Consol Fume

Consol has develop a solution system for your work, whether it's new, maintenance, renovation or repaired projects. We provide guidance and product from the beginning to the finishing of the problem. Problems in building is very specific and there is no exactly the same case. We gather experts to give the best in order to help. Our concern is not only on the surface work that is visible, but also to the ground of the problem. Our technical support will guide you for the best use of our solutionn.

1. Consol Form Oil Series

Consol Form Oil

Consol Form Oil is Form release agent for steel and wooden formwork, facilitates removal and cleaning of shuttering. Number of lifts is substantially increased.

Consol Form Oil provides the following properties:

- Ready to use
- Easy to apply
- Combined chemical and physical action
- Ensures fair faced concrete finish

Consol Form Oil WB

Consol Form Oil WB is a specially concentrated blend of mineral oils and selected additives. It is supplied as a low viscosity, pale straw coloured liquid ready for dilution with water. As well as improving cast concrete surfaces, Consol Form Oil WB minimize damage to form surface. On all mold types the easier release and reduced residue minimize the chance of damage to the mold surface during stripping and cleaning.

- Ensure easy release, reducing damage and improving efficiency of production
- Suitable for use with virtually all types of formwork.
- Minimize cleaning of formwork before re-use
- Minimize surface blemished and staining, promoting high quality fair-faced concrete even with white cement
- Reduces opportunity of damage to formwork, extending usable life.
- Concentrate minimize storage and transport costs.

2. Consol Epoxy Injection

Consol Epoxy Injection is used to fill and seal cavities and crack in structural concrete such as columns, beams, foundations, decks, and water-retaining structures. It not only forms an effective barrier against water infiltration, but also bonds the concrete sections, together, there by restoring original structural strengths.

Consol Epoxy Injection is a deeply penetrative with high adhesive qualities. Other benefits are:

- Solvent - free
- Suitable in both, dry and damp conditions
- Useable at low temperatures
- High mechanical and adhesive strength
- Hard, but not brittle
- No Shrinkage



① CONSOL FORM OIL SERIES
Mold release agent

MOLDING

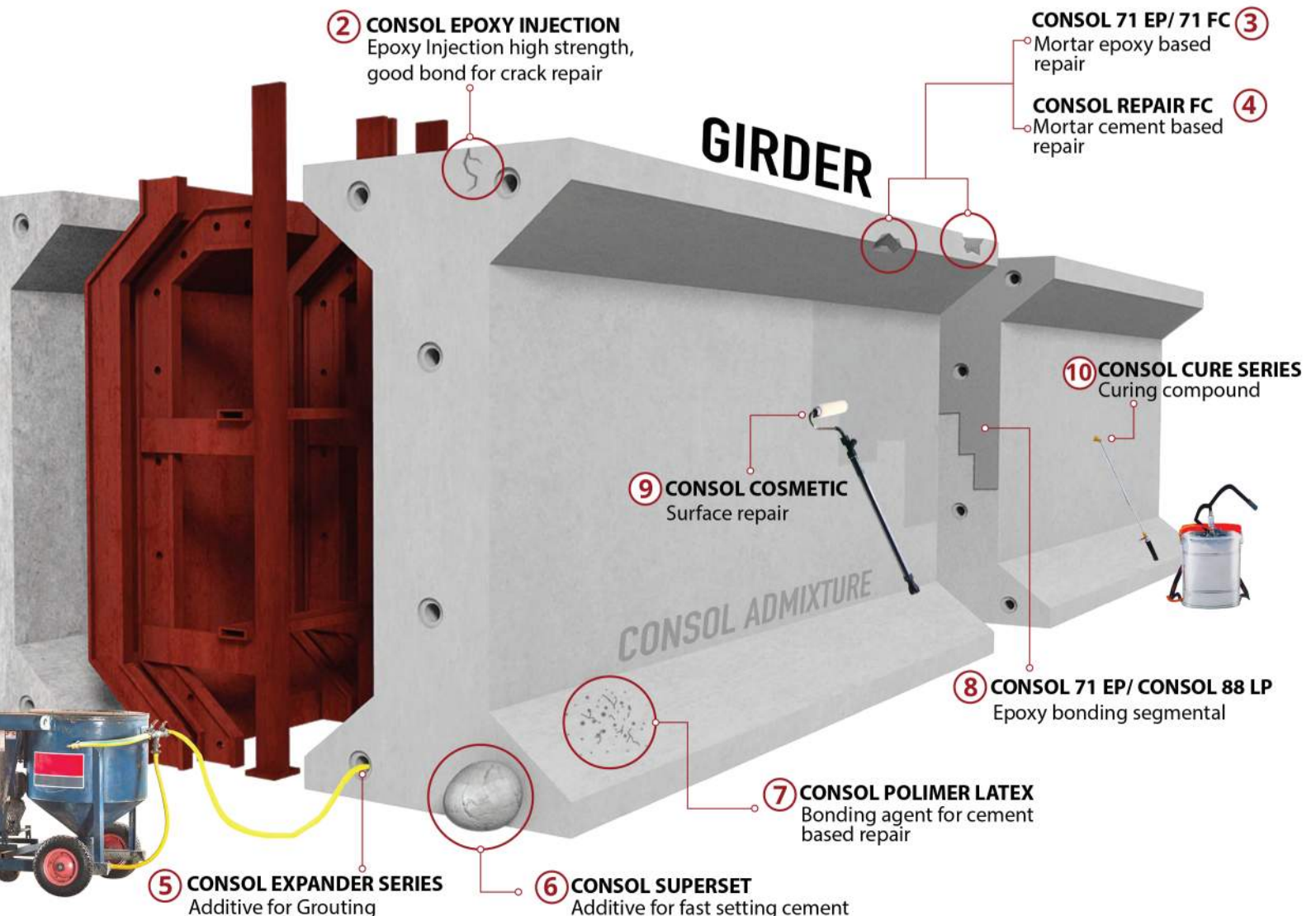


3. Consol Epoxy Based Repair

Consol 71 EP & 71 FC

Consol 71 EP and Consol 71 FC is a moisture tolerant, thixotropic, structural two-part adhesive and repair mortar. Based on a combination of epoxy resins and special fillers. The following properties of benefit such as:

- Easy to mix and apply
- Suitable for dry and damp concrete surface
- Thixotropic: non-sag in vertical and overhead applications
- Good adhesion to most construction materials
- Abrasion resistant
- No primer needed
- Chemical resistant
- Impermeable to liquids and water vapor
- Hardens without shrinkage
- Different coloured component
- Sea water resist
- Consol 71 FC Curing Faster



4. Consol Repair FC

Consol Repair FC is a cement based polymer modified compound, consist of two-component, easy to form for general repair concrete surfaces.

Consol Repair FC provides the following properties of benefit such as :

- Acceptable comprehensive strength.
- Thixotropic characteristic for effortless mixing and application.
- Adjusted consistency.
- High resistance to chloride and salt water.
- Low permeability.
- Good adhesion.



5. Consol Expander Series

Consol Expander Series is a plasticized expanding grout admixture is supplied as a powder. This product is an expansion system which compensates for plastic shrinkage and settlement in cementitious grouts and concrete. It contains a water-reducing agent which increases the workability of the mix with a reduced water content. Applications include bed grouting, duct grouting, non-shrink infilling and jointing. By introducing micro bubbles into the mix, it produces wet volume expansion and increased fluidity without segregation. Consol Expander AS is used to increased cohesion in cement grouts and is suitable for use in the grouting of:

- Pre-stressed cable ducts
- Rock and soil anchoring
- Bearing plates
- Pre-placed aggregates
- Tunnels lining
- Pre-cast concrete elements
- Tilt construction wall panels
- Crack injection.



6. Consol Superset

A concentrated solution of accelerating, plasticizing, and shrinkage-reducing agents, which is added to portland cement to produce quick setting mortar. produce quick setting, low shrinkage, high strength concrete patches. It can be used for sealing leakages and for plugging water infiltrations in concrete.

Consol Superset Benefits

- Rapid set time
- Low shrinkage
- Good adhesion
- High early strength and compressive strength



7. Consol Polimer Latex

A synthetic rubber emulsion for addition to cement mortars where good adhesion, good compressive strengths, considerably improved flexural and tensile strengths and water resistance are required.

Consol Polymer Latex is a high-quality emulsion which substantially increases the equalities of cement mortar, such as:

- Thin layer patching mortars
- Rendering
- Floor screeds
- Concrete repair mortars
- Abrasion resistance linings
- Tile fixing mortars
- Masonry mortar
- As a bonding agent between new and old concrete



8. Consol Bonding Agent

Consol 88 LP/71 EP

Consol 88 LP is used to bond fresh, plastic concrete, to hardened concrete and steel. Structural adhesive for concrete, masonry, metal, wood etc.

Other benefits are:

- Long pot life
- High strength bonding
- Excellent adhesion to most structural materials
- High early and final strength
- Insensitive to moisture before, during and after cure
- High effective, even on damp surfaces
- Sea water resistance



9. Consol Cosmetic

Consol Cosmetic is a polymer modified, 2-component, cementitious coating. Designed to use on the concrete, mortar, and masonry substrates. Easily applied by brush, roller, or spray equipment. This fine-textured, abrasion resistant coating is used for protection against deicing salts and for damp proofing/ waterproofing.

The other benefit of Consol Cosmetic is:

- Bond strength ensures superior adhesion
- Increases resistance of substrate to deicing salts
- Does not create a vapor barrier
- No mix water needed, liquid co-polymer triggers special blend of cement, fillers, and admixtures.
- No batching, factory proportioned unit ensures consistent composition and high quality. Non-flammable, low odor.
- Easily applied to clean, sound substrates



10. Consol Cure Series

Consol Cure S

As a curing compound for concrete, it is applied to fresh concrete surfaces to form impervious membrane which protects the concrete from rapid water evaporation during initial curing stages. It recommended for building, highways, roof deck and manufacturing industries.

Consol Cure S beneficial properties such as:

- Reduces dusting
- Reduces incidence of plastic shrinkage
- As a concrete curing system that surface treatment or paint are to be applied
- Increase abrasion resistance



Curing on Vertical Area

Consol Cure E White

Consol Cure E White is particularly useful in large areas of exposed concrete where a solar reflective membrane is preferred, such as:

- Highways
- Runways and taxiways

Consol Cure E White is sprayed on to newly concrete surface to form a thin film barrier against premature water loss. Without disturbance to the normal setting action, the concrete is then allowed to cure and achieve maximum properties.



Curing on Horizontal Area



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