

Couple Shimi Sepahan Company

The first specialized manufacturer of silicate-based and silicon-based composites in Iran

The Couple Shimi Sepahan Company started its activities in 2013 with the cooperation of several academics and industrial activists for the purpose of producing silicate—based and silicon—based chemicals and eliminating the lack of domestic production of these chemicals. This company consists of a R&D department that is equipped with modern and state—of—art technologies and machines and the company has taken a huge step in order to eliminate the needs of factories and numerous industries in terms of the latest formulations and standards around the world with the aid of experts and specialized individuals in this field.

The company's R&D department is continuously expanding its product portfolio and Couple Shimi is proud to announce that it is currently manufacturing 15 types of products in 4 categories, including alkoxysilane monomers and polymers, lithium—based concrete hardeners, liquid—based and solvent—based water repellent materials for building surface, repair products, and decorative acid stain colors for concrete, for numerous industries and factories, e.g., construction, color and adhesive industries, industrial coating, industrial coating, composite and lumber industries, etc.

Couple Shimi Sepahan Company focuses on quality, customer satisfaction, following all the customer rights and national standards in order to manufacture high–quality products. The company distributes its products under the brand name "COUPSYLO".

List of Products











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An Introduction to COUPSYL® Lithium Liquid Hardeners (Concrete Surfaces)

The first category of products manufactured by Couple Shimi Sepahan Company includes COUPSYL® lithium liquid hardeners for cement surfaces. This product is applied to modify the characteristics of concrete floors with the aid of a process called glazing or concrete polishing.

Glazing of concrete floors is executed with the aid of COUPSYL® lithium liquid hardeners and then, the concrete floor is polished. Abrasion resistance, impenetrability, gloss, and light reflection of different types of floors constructed of concrete, mosaic, powder hard concrete, and dry hard mortar.

Applying COUPSYL® lithium liquid hardeners is so simple and it can help increase abrasion resistance extensively by penetrating and reacting to the concrete surface without creating any extra layers and adding to the diameter. Also, it helps reduce the concrete penetrability by adding to the concrete's density.

One of the unique characteristics and advantages of these products is that they are liquid and highly capable of penetrating. These characteristics help the improvement and hardening of old and new concrete surfaces without any need to increase surface diameter and without causing any change in color and appearance.

Couple Shimi Sepahan Company is manufacturing these types of products with three different grades.

Liquid Densifier for Concrete Surface

COUPSYL®LS-DENSIFIER

Liquid Hardener for Concrete Surface

COUPSYL®LS-HARDENER

Concrete Sealer

COUPSYL®LS-SEALER



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Help Release the Energy of Concrete Floors with the Aid of Concrete Glazing (Concrete Polishing)

During the concrete floor glazing, the floor is polished and leachate is removed. Hence, aggregates emerge. Then, these materials penetrate inside of the concrete by adding lithium sealers and hardeners over the surface. These help increase the density and hardness, impenetrability, and gloss of concrete floors.



You can reduce the cost of concrete floor maintenance with the aid of lithium-based liquid hardeners.

COUPSYL® lithium and silicate—based liquid hardeners and sealers either react or are absorbed. These materials start reacting with free calcium by penetrating the concrete surface and producing calcium silicate hydrate crystals. Then, these crystals fill all the microscopic gaps and holes inside the concrete texture. This helps increase the life span of concrete floors.

COUPSYL® lithium-based sealers and hardeners can be absorbed to an incredible extent and will not create excess layers and film over the surface. Hence, they are highly durable.

They can be also applied over new and old concrete surfaces since they have a liquid form



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An Introduction to COUPSYL® Facade Water Repellents

COUPSYL® Nano Water Repellent products are manufactured by Couple Shimi Sepahan Company to make different types of building surfaces (made of wood, metal, and glass) repel water. Two types of these products are distributed in the market, liquid-based and solvent-based.

One of these products is a Nano silicon water repellent based on Methyl Siliconate or COUPCOAT®WRS. This material is capable of penetrating inside the building surfaces and preventing the penetration of water and the creation of efflorescence on different building surfaces.

Another product is solvent-based water repellent with silane- siloxane nature or COUPCOAT®SWRS. This product is capable of hydrophobicsizing various surfaces, e.g., wood, glass, metal, etc.

Nano acrylic coating or COUPCOAT® NAC is a glossy water-repellent coating with nanotechnology for all types of building surfaces, which is based on acrylic resins and is distributed into the market in water-based and solvent-based form.

Efflorescence remover solution or COUPCOAT®ECS is an efflorescence cleaner for all types of building surfaces. This product has a high desalination power.

Couple Shimi Sepahan Company is manufacturing these products in four grades.

Nano Silicon Water Repellent COUPSYL® WRS

Solution Siloxane-Based Water Repellent COUPSYL® SWRS

Nano Acrylic Coating COUPCOAT® NAC

Efflorescence Remover Solution COUPCLEAN® ECS



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Advantages and Applications of COUPSYL® Facade Water Repellant Products

These products have repellency characteristic that causes the creation of self-cleaning feature on building facades. This product has also received the Nano-scale Certificate by the Iran Nanotechnology Innovation Council of Vice-Presidency for Science and Technology, which is in accordance with Iran's national standard code. 21145.





These products have a high extent of easy self-cleaning properties and are used for hydrophobicizing of numerous surfaces made of glass and wood, building facades, and also, coating for interior facade.

Efflorescence remover solution is used to clean all kinds of sulfate and carbonate efflorescences in the building facade, especially brick surfaces.



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An Introduction to Acid Stain Reactive Color (COUPCOLOR®)

Couple Shimi Sepahan Company produces concrete reactive colors (liquid color for cement and concrete) or "acid stain" that are distributed to the market with 10 color codes. Liquid paints from acid-stain concrete are used in order to paint cement and concrete surfaces. The liquid paint will start to react after penetrating the concrete surface and the reaction with the calcium over the surface results in colors over the cement and concrete surface. The quality and type of concrete surface and concrete grad can impact this procedure.

ANP neutralizing powder is applied in order to neutralize excess acid stain that is not reacted with cement and concrete surfaces after painting these surfaces with acid stain reactive colors.

Couple Shimi Sepahan Company is manufacturing these products in two grades.

Acid Stain Color (Liquid Paints for Cement and Concrete)

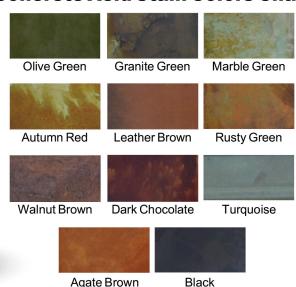
COUPCOLOR® CAS

Acid Stain Neutralizing Powder (ANP)

COUPCOLOR® ANP

Concrete Acid Stain Colors Chart





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Advantages and Applications of COUPCOLOR® Acid Stain Color

Acid stain colors are water-based and can be applied on new and old concrete surfaces. These paints are not petroleum-based and therefore, they are not flammable. Moreover, they are highly impenetrable, have high UV resistance, and can join the concrete texture.





Acid stain is used to paint concrete and cement surfaces, create decorative concrete floors, and different patterns on concrete floors. Moreover, these products are used for painting concrete and cement parts and products, fountains made of cement, prefabricated cement walls, and cement plasters.

ANP neutralizing powder is applied in order to neutralize excess acid stain that is not reacted with cement and concrete surfaces after painting these surfaces with liquid acid stain reactive colors.

ANP neutralizing powder should be used on cement and concrete surfaces, which are painted using acid stain colors, once a certain and enough amount of time is passed. This way, there will be enough time for the reaction between acid stain colors and cement or concrete surface.



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An Introduction to COUPSYL® Silane Coupling Agents

The silane coupling agent is a component of alkoxysilane and the large family of organosilicon. These agents are based on metallic and organic composites of silicon and are highly used in numerous industries.

One of the products of this company is tetramethoxysilane that is the smallest member of the alkoxysilane family and has 4 groups of ethoxy silanes. As a silane coupling agent, this product dissolves in alcohol and most common solvents and is rapidly hydrolyzed and degraded in contact with moisture to form SiO2 powder and ethanol alcohol. Tetramethyl orthosilicate is the most used chemical in the alkoxysilane family and has applications in numerous industries.

The company also manufactures another product, tetra ethyl ortho silicate, which has 4 groups of ethoxy silanes. Tetraethyl orthosilicate is also known as tetra ethoxy silane.

Couple Shimi Sepahan Company is manufacturing these products in two grades.

Tetra Methyl Ortho Silicate

COUPSYL® TMOS

Tetra Ethyl Ortho Silicate

COUPSYL® TEOS



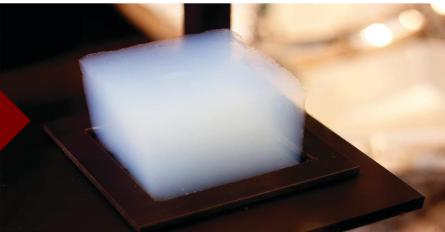
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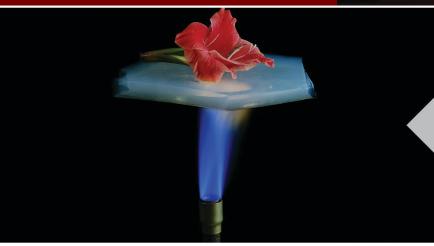
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Advantages and Applications of COUPSYL® Silane Coupling Agents

Couple Shimi Sepahan Company produces tetramethyl orthosilicate and tetra ethyl orthosilicate with high purity and produces high-quality products for industrial uses. It is worth noting that native technical knowledge is utilized to manufacture these products.





Tetramethoxysilane has numerous applications, including production of silicate aerogels, production of sol-gel as a hardener for silicone adhesives and resins, production of pure SiO2 powder, production of nano-silica, restoration of heritage sites, and waterproofing of building surfaces.

Tetramethoxysilane has also numerous applications, including silicate aerogels, a solvent for resins and silicone adhesives, production of sol-gel, production of pure SiO2 powder, production of silica fume, and silicate erosil.



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Advantages and Applications of Cement Base Repair Products (COUPCRETE®)

Single-component and two-component seam isolators are manufactured by Couple Shimi Sepahan Company. These isolators are resistant to acidic and chemical substances (HCL). These products can be used to isolate are suitable for isolating kitchen floors, bathrooms and will help prevent the penetration of water between gaps and other stories through them.



Pool isolation or bitumen based insulation substitute has two liquid and powder components. The powder component of this product is available in several colors, including white, grey, black, and blue. This product can be used for sealing and isolating various wells, pools, howzs (traditional Persian architecture), and fountains. The most important feature of this product includes high adhesion, high UV resistance, and resistant to constant temperature and rainfall changes.



Two-component repair putty has two powder (with white and grey colors) and resin components (milky color). Two-component repair putty can be used for repairing old concretes, concrete pillars and stands, and filling and repairing any type of concrete surfaces. It has also high compressive and tensile strength and can be implemented on all concrete surfaces, including internal and external façade of the buildings and constructs.



Concrete surface floor repair adhesive which is suitable for polishing the floors, is based on acrylic-butadiene rubber resins and is used in repairs and restoring concrete surfaces, when you are flooring or polishing and glazing the concrete floor. This product will help fill the gaps and cracks while preserving the color in concrete surface (maximum color of the new surface with the old surface).



Office Address:

Unit 16, 4th Story, Almas Commercial Building Next to Alley No. 16, Jey St. Isfahan, Iran

Telefax: (+98) 3132505965

Factory Address:

Fannavaran Bulvard, Phase 3, Razi Industrial
Town (Rangsazan), Isfahan, Iran
Email: Coupleshimi@gmail.com

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