# تکین ویستا اسپادانا

# Takin Vista Espadana

www.takinvista.com

# contents

**Takin Vista Spadana**, technical and engineering company

has started it's work in the field of counseling of construction projects and producing of concrete additives with the expert research team since 2016 and throughout these years has tried to approach its goals based on its technical knowledge along with development, protection and promotion of the quality of the productions.

**the factory with an area of 200 square meters is located in Shahr-e-Abrisham of Isfahan City ,and includes the following automatic production lines:**

-smoothing of concrete

-Cement-based powder adhesives

-concrete lubricants

-liquid foam concrete

**the company's consulting and service activities include:**

-Providing consulting services in the field of production of concrete additives and construction chemicals

-providing waterproofing methods for all concrete structures

-providing and production of lightweight concrete with different strengths /exposed concrete/GRFC

-providing consultation, building and production of concrete production machines and automatic concrete additive injection

**Takin Vista Spadana collection experts have participated in different and extensive construction projects as executive consulting or has offered their productions that some of them are as follows:**

-Providing additives of concrete pouring project of a part of the Nain Railway by Kisoon company

-providing additives of concreting of petrochemical tanks in Mahshahr and Asaluyeh

-providing concrete additives and lubricants for some of ready-mix concrete factories

-providing the additives for some of National Housing projects in Isfahan

-providing consultation for executing of porous concrete flooring in the villa complex in Pardis- Rasht

-providing waterproof thatch in order to reconstruct the traditional facade of municipality in Kerman,Yazd and Isfahan.

# Concrete plasticizer

( Addmix 1020)- Superplasticizer

## Carboxilate super plasticizer

**Standard**

ASTM C494 ISIRI 2930

## Applications

Tunnel and sliding forms and bridges
Self _compacting and self _leveling concrete
Concreting in narrow and heavily reinforeced sections
Precast concrete parts and glass fiber reinforced concrete

## How to use

The calculated amount of superplasticizer should be diluted with twice volume of concrete mixing water.The diluted admixture should be added gradually to the mixing concrete.Be careful not to pour the additive directly onto dry cement.

## Amount of use

The best consumption rate to achieve specific specifications is determined by conducting various tests under workshop conditions. the usual amount of superplasticizer consumption is from 0/2% to 0/8 % of the weight of cement consumed.

## Description

The super plasticizer is a liquid additive on poly carboxilate very strong concrete mixing water reducer and very strong performance enhancer for high_performance concrete that incredibly improve spreaging of cement particles. According to building necessities they use age of this production is emphasized in building of special concretes (self_ leveling and self _compacting)and the concretes that has regulatory requirements for minimizing the portion of water to concrete or in particular condition that slamp drop is not compensated by other super lubricants.

## Properties and effects

slamp increase
Increasing the fluidity are workability of concrete
Possibility of reducing the water to cement ratio by about 30%
Creating beautiful concrete (expose)
Increasing concrete cohesion and compressive strength

## Keep

Time :1 year in original packaging
Away from cold and frost, heat and direct and prolonged sunlight
The best temperature :+10 to +30 degrees Celsius

## Safety

Never contact the production with eye
Wear goggles and gloves
In case of I eye contact push your eyes with a lot of water fast

**Physical and chemical characteristics**

| | |
|---|---|
| State | Liquid |
| Color | honey brown |
| specific weight | ۱/۱۳gr/cm$^3$ |
| Chlorine ion | none |
| PH | about7 |

( Addmix 1021)- Superplasticizer **Concrete plasticizers**

## Carboxilate super plasticizer

**Standard** ISIRI 2930 ASTM C494

## Applications

Tunnel and a sliding forms, dams and bridges
Concreting in hot areas
Concreting in narrow and heavily reinforced sections
High compressive strength concretes

## How to use

the calculated amount of super plasticizer should be diluted with twice the volume of concrete mixing water.The diluted admixture should be added gradually to the mixing concrete. Be careful not to pour the additive directly onto dry cement.

## Amount of use

The best use rate to achieve a specific specifications is determined by conducting various tests under workshop conditions. the usual amount of superplasticizer use is from 0/2% to 0/8% of the weight of cement used.

## Description

The super plasticizer is a liquid additive based on poly carboxilate, very strong concrete mixing water reducer and very strong performance enhancer for high_ performance concrete that incredibly improves a spreading of cement particles. It has optimal slum retention and is suitable for concreting in hot areas and long distances.

## Properties and effects

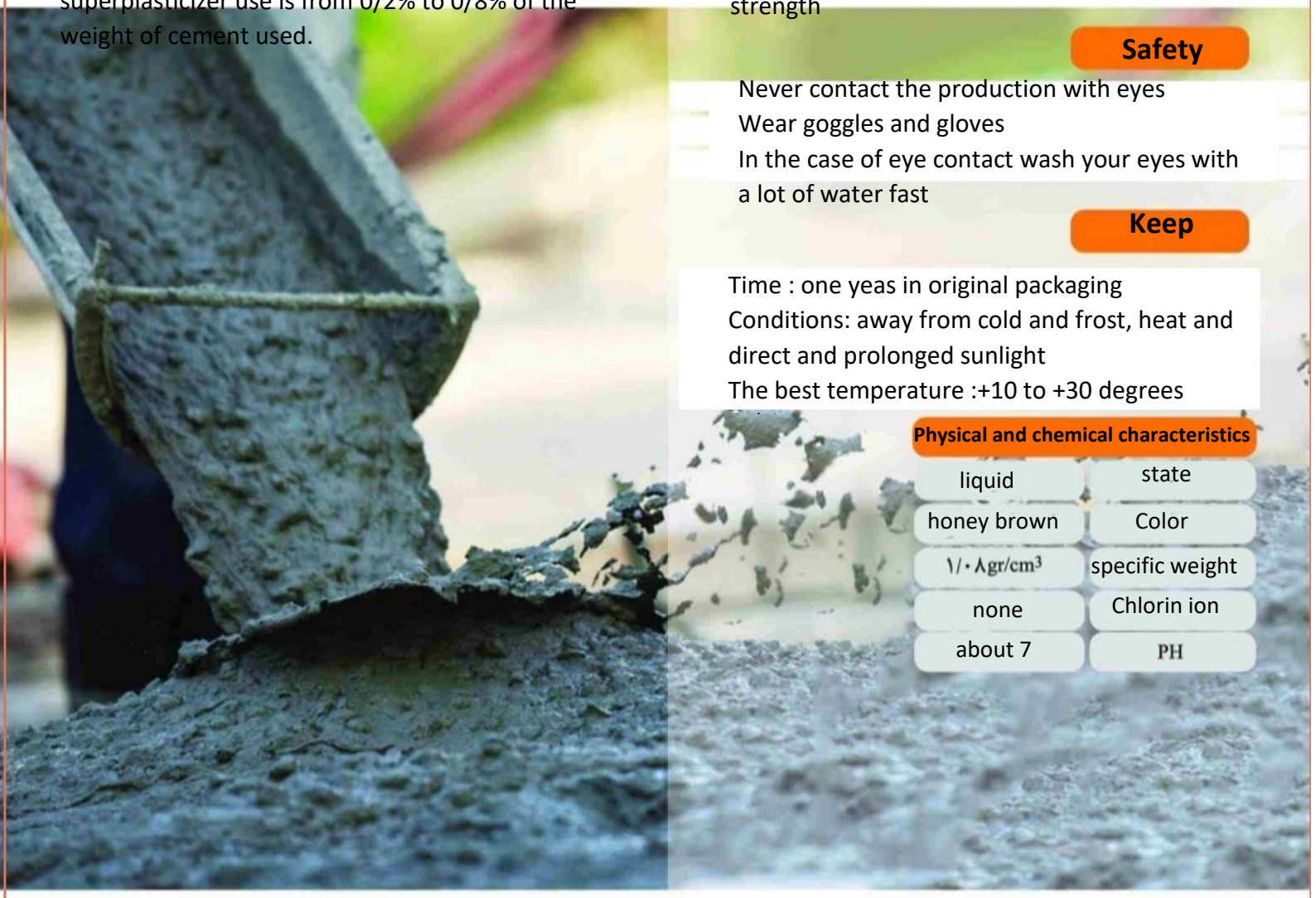
Slump increase
Increasing the fluidity or workability of concrete
Possibility of reducing the water to cement ratio by about 20%
Creating concrete mortar with proper workability time
Increasing concrete cohesion and compressive strength

## Safety

Never contact the production with eyes
Wear goggles and gloves
In the case of eye contact wash your eyes with a lot of water fast

## Keep

Time : one yeas in original packaging
Conditions: away from cold and frost, heat and direct and prolonged sunlight
The best temperature :+10 to +30 degrees



## Physical and chemical characteristics

| | |
|---|---|
| state | liquid |
| Color | honey brown |
| specific weight | ۱/۰۸gr/cm³ |
| Chlorin ion | none |
| PH | about 7 |

(Addmix 1025)- Normal Plasticizer

Concrete plasticizers

# Normal Plasticizer

**Standard**

ASTM C494

ISIRI 2930

## Applications

Prestressed concrete
Place where the density of reinforcement is high and fluid concrete is required
Where water reduction is desired to reduce permeability
Types of concreting in hot weather

## How to use

Add add concrete plasticizer during concrete batching or to the ready _mix concrete in the truck mixer or mix the plasticizer with a small amount of concrete mixing water and then add to concrete.

## Amount of use

The consumption of this product is between 0/4 and 0/2% of the cement used in concrete. excessive consumption will cause concrete to set slowly which is more severe for anti_ sulfate cements.

## Description

The normal plasticizer is a polymer processed liquid additive that can be used for concrete water reduction and keeping its performance .It is a multi _functional product and can be used as concrete water reducing additive ,concrete efficiency keeper and concrete setting retarder.

## Properties and effects

Increase slump

Increasing workability of concrete

Increasing compressive strengths

Saving on cement consumption

Concrete water reduction of about 10%

## Safety

In case of accidental contact with skin or eyes wash with fresh water.
If swallowed' consult a doctor.
This product does not contain dangerous or flammable materials.

## keep

Time : one year in original packaging
Conditions: away from cold and frost ,heat and direct and prolonged sunlight.
The best temperature :+10 to +30 degrees Celsius

## Physical and chemical characteristics

| | |
|---|---|
| Liquid | State |
| Brown | Color |
| 1/01 $gr/cm^3$ | specific weight |
| None | Chlorin ion |
| about 7 | PH |

(Addmix 1025)- Normal Plasticizer **Concrete plasticizers**

**Waterproof plasticizer**

ASTM C494 | ISIRI 2930 | **Standard**

## Applications

Concreting pools ,water storage tanks and ponds
Concrete construction for waste and waste water treatment plants
Concreting water transfer channels

## How to use

Add add concrete plasticizer during concrete batching or to the ready _mix concrete in the truck mixer or mix the plasticizer with a small amount of concrete mixing water and then add to concrete.

## keep

Time : one year in original packaging
Conditions: away from cold and frost ,heat and direct and prolonged sunlight.
The best temperature :+5 to +30 degrees Celsius

## Description

Concrete plasticizer is a dual_ purpose processed liquid additive that ,in addition to plasticizing and increasing the performance of concrete also has the ability to reduce the permeability and water absorption of concrete therefore it can be used to increase the efficiency and waterproofing of concrete.

## Properties and effects

Increase slump

Producing concrete that is impervious to salts, water and corrosive substances

Preventing the formation of surface cracks

Preventing sulfation and carbonation of concrete

## Amount of use

The consumption of this product is between 0.2 and 0/1% of the weight of cement used in

## Safety

In case of accidental contact with skin or eyes wash with fresh water.
If swallowed' consult a doctor.
This product does not contain dangerous or flammable materials.

## Physical and chemical characteristics

| | |
|---|---|
| liquid | state |
| light honey | Color |
| 1/13 $gr/cm^3$ | special weight |
| none | Chlorin ion |
| about 7 | PH |

( Addmix 1019)- Superplasticizer **Concrete plasticizers**

**Artificial stone resin**

**Standard** ISIRI 2930 ASTM C494

## Applications

Precast concrete parts
(grfc) glass fiber concrete
Exposed concrete
Artificial stones and mosaics

## How to use

the calculated amount of super plasticizer should be diluted with twice the volume of concrete mixing water.The diluted admixture should be added gradually to the mixing concrete. Be careful not to pour the additive directly onto dry cement.

## Amount of use

The best use rate to achieve a specific specifications is determined by conducting various tests under workshop conditions. the usual amount of superplasticizer use is from 0/2% to 0/8% of the weight of cement used.

## Description

Artificial stone resin is a liquid additive based on polycarboxilate.the super plasticizer is a very strong concrete mixing water reducer and a very strong workability enhancer for high_ performance concrete and it significantly improves the dispersion of cement particles.

## Properties and effects

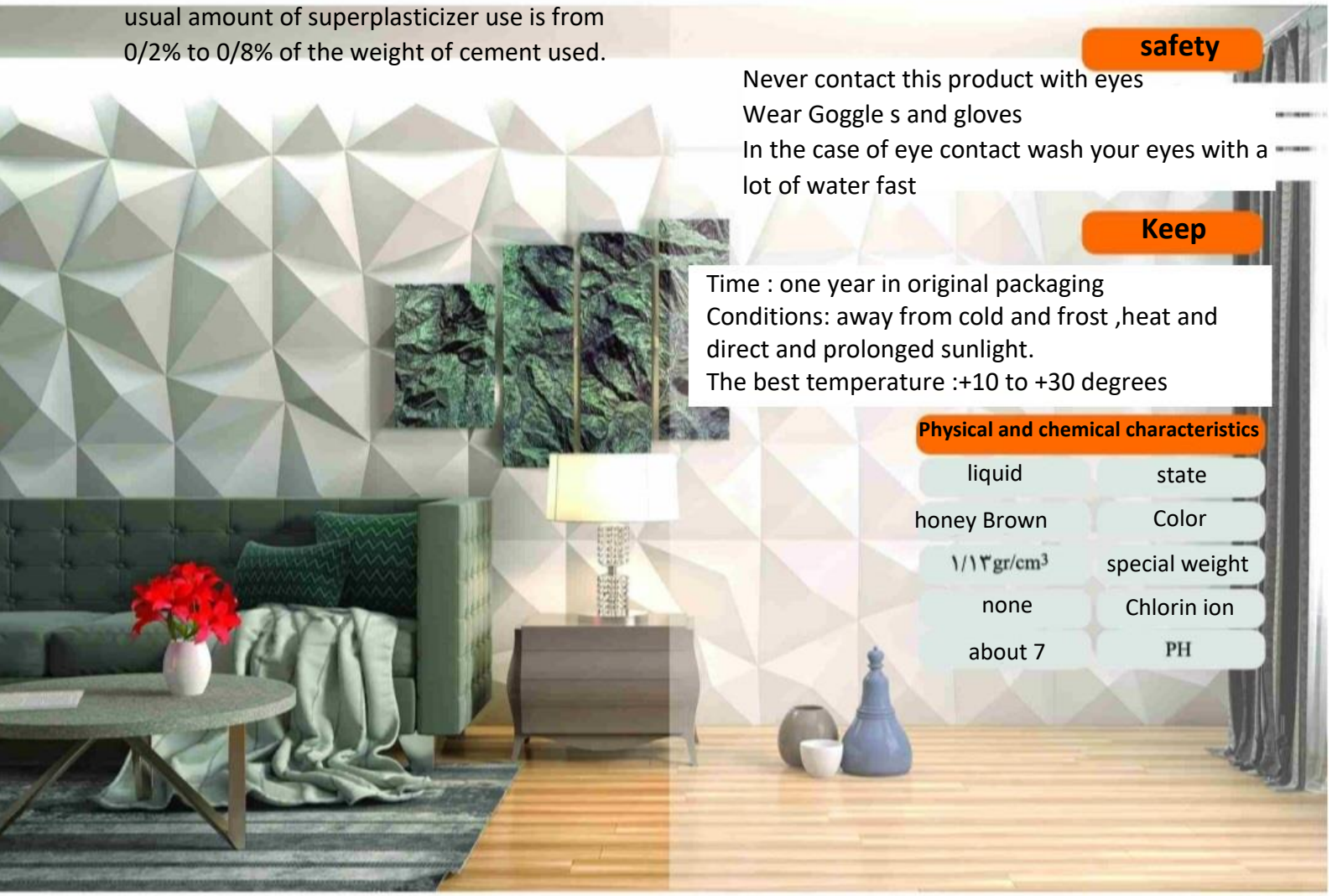
Increase slump
Increasing the fluidity or workability of concrete
Reducing the adhesion of concrete to the formwork
Creating beautiful concrete or Exposed
Increasing concrete cohesion and compressive strength
Without creating porosity on the surface of the part and increasing surface gloss

## safety

Never contact this product with eyes
Wear Goggle s and gloves
In the case of eye contact wash your eyes with a lot of water fast

## Keep

Time : one year in original packaging
Conditions: away from cold and frost ,heat and direct and prolonged sunlight.
The best temperature :+10 to +30 degrees



## Physical and chemical characteristics

| | |
|---|---|
| state | liquid |
| Color | honey Brown |
| special weight | ۱/۱۳gr/cm3 |
| Chlorin ion | none |
| PH | about 7 |

# Waterproof mortar

(PW66)- Waterproof Plasticizer

**Liquid concrete Waterproofe**

**Standard**

ASTM C494 ISIRI 2930

## How to use

The correct amount of this product should be measured with appropriate equipment and then the measured amount should be added directly preferably at the time of adding water to the mixer. It should be noted that like all concrete structures proper curing must be performed. for this purpose, curing agents such as the use of during agents wet sacking or water spraying are recommended.

## Amount of use

The consumption rate for waterproofing bulk concrete is 2 to 2.5% of the weight of the cement used. It should be noted that excessive consumption of this product up to 2 times the usual amount can increase the initial setting time of the concrete. the final strength is not reduced by this delay and usually increases. Also the efficiency of the concrete increases significantly

## Description

Liquid waterproof is formulated mixture of acrylic acid resin and polymer additives that is suitable for waterproofing and making permeabel all types of masonry mortar and grout. When this product is added two concrete ,it disperses in water and acts as a strong particle dispersing agent causing cement particles that tend to clump to spread out and gain a longer free surface area. in this way the water in the mixture acts in a certain way and performs the hydration process with less water and in a

## Properties and effects

Prevent water from penetrating into the concrete
Chloride free therefore suitable for reinforce the concrete
Increasing the amount of water used in the mixture

## Applications

Implementation of impermeable concrete for bridges ,canals, tunnels ,and tanks
Suitable for coastal walls of tunnels, pools, treatment plants and dams
Waterproofing concrete and cement _Sand mixtures
Suitable coverage for sloping and rain_ resistant surfaces

## Safety

In case of accidental contact with skin or eyes wash with fresh water.
If swallowed' consult a doctor.
This product does not contain dangerous or flammable materials.

## keep

Time : one year in original packaging
Conditions: away from cold and frost ,heat and direct and prolonged sunlight.
The best temperature :+10 to +30 degrees

## Physical and chemical characteristics

| | |
|---|---|
| liquid | state |
| white | Color |
| ۱/۰۲gr/cm3 | special weight |
| none | Chlorine ion |
| ۷/۵ ± ۰/۵ | PH |

(WP-D100)- Waterproofing

# Waterproofing mortar

## Two_ component waterproof

**Standard**

ASTM C348 ISIRI 2930

## Applications

Sealing of stone brick, concrete tanks
Insulation of water treatment plants and purification
Fixing leaks and dampness in basements and balconies
Isolation and stabilization of uneven surfaces with negative and positive pressure

## Description

The modified polymer product is a two_ component sementitious waterproofing more tart a slurry. The product consists of liquid polymer and sementitious material ,the combination of which creates a special additive that has very high durability and adhesion.

## How to use

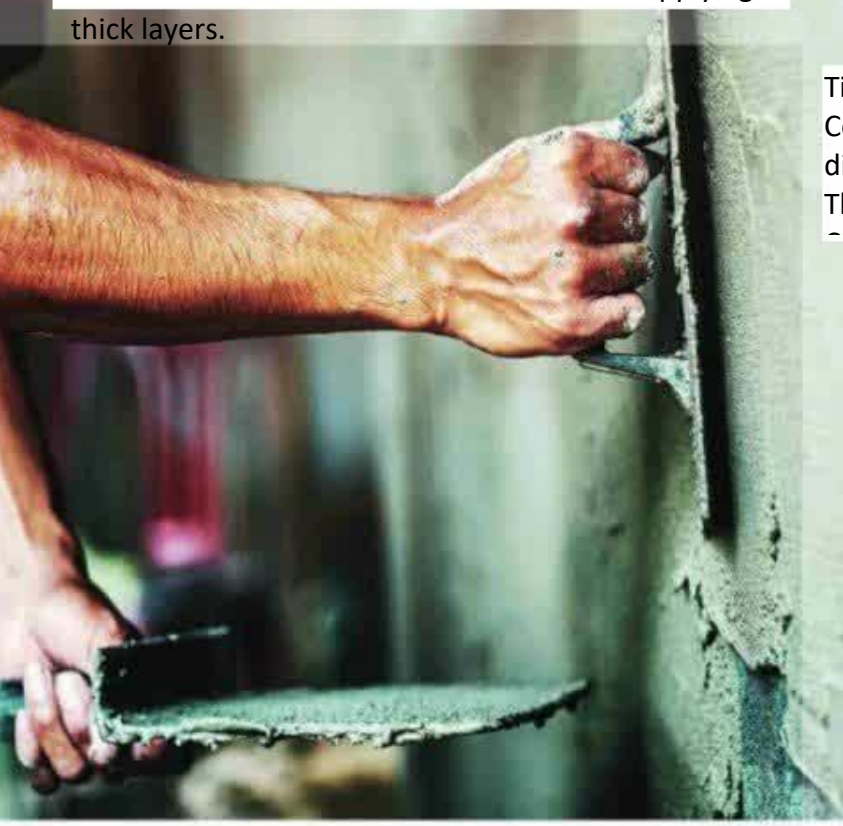
Clean the surfaces fill and level the irregularities completly, mix the liquid and powder components to the liquid. Moisten all surfaces where the sealant will be applied with fresh water. After mixing the components thoroughlly and obtaining a homogeneous mixture ,apply the prepared material using a large one-handed brush and after drying the first coat on it. After the second coat dries, keep the surfaces moist by spraying for 24 hours.

## Properties and effects

Very high adhesion to surfaces
High resistance to frost
Suitable flexibility
Improves permeability of the sections used
Excellent resistance to acids and alkalis , salts

## Amount of use

Depending on the amount of pores under the work, 1 to 1.5 kilograms per square metre is required per layer for a 1.5 mm thick coating. the final layer thickness is between 1 and 2 mm and avoid applying thick layers.



## Safety

Never contact this product with eyes
Wear Goggle s and gloves
In the case of eye contact wash your eyes with a lot of water fast

## keep

Time : one year in original packaging
Conditions: away from cold and frost ,heat and direct and prolonged sunlight.
The best temperature :+10 to +30 degrees

## Physical and chemical characteristics

| | |
|---|---|
| liquid /powder | state |
| grey | mortar color |
| ۱/۱ gr/cm³ | Special weight |
| none | Chlorin ion |
| +۱/۸ n/m² | tensile strengths |
| hours 1.5-3 | Surface drying time |
| days 3-7 | Final drying time |
| + ۵° | minimum temperature during application: |

# Special grout

ASTM C1107 **Standard**

## applications

Installation of industrial machinery
Filling the empty space between the column plate and the foundation
Installing anchor bolts and fence posts
Fixing the columns page
Injection under buildings and base plates

## amount of use

By calculating the cross-sectional volume and considering the specific gravity of the prepared grout, the amount of grout consumption can be determined.But generally, the grout consumption is 2200 kilograms per cubic meter of space.Each 20 kg bag fills about 13 liters of space.

## properties and effects

flowability and high efficiency
Extremely durable and impenetrable
Protection of rebars and reinforcements against corrosion
High compressive, flexural and tensile strength
Excellent performance due to non-shrinkage properties

## description

It is a cement-based, non-shrinking product.With a 28-day compressive strength of approximately 700 kg/cm2, it is a suitable mixture for installation and fixing of structures with stationary machinery.This product is a ready-to-use powder that, when added to water, turns into a very smooth, non-shrinking mortar,Due to its special structure and granularity of its components,is very suitable for filling empty spaces under base plates, implementing heavy machinery foundations and steel substructures, and fixing prefabricated columns.

## how to use

For each 20 kg bag, add about 3.5 liters of water to make a paste-like grout and about 4 to 4.5 liters to make a runny grout.To mix, pour water into a suitable container, gradually add all the powder, and mix with a suitable mechanical mixer for 5 minutes.15 minutes after

## safety

In case of accidental contact with skin or eyes, wash immediately with plenty of fresh water.
If swallowed, seek medical attention immediately.
Avoid direct breathing when mixing grout.
Wear gloves, safety glasses, and a mask.

## fisical and chemical characteristics

| | |
|---|---|
| form | powder |
| Color | Gray |
| specific weight | ۲/۳ gr/cm$^3$ |
| Ion Chlorine | none |
| 1day compressive strength | ۳۰۰ gr/cm$^2$ |
| 3 day compressive strength | ۵۰۰ gr/cm$^2$ |
| 7day compressive strength | ۶۵۰ gr/cm$^2$ |
| 28day compressive strength | ۸۰۰ gr/cm$^2$ |

## keep

Time : one year in original packaging
Conditions: away from cold and frost ,heat and direct and prolonged sunlight.
The best temperature :+10 to +30 degrees Celsius

(GE800)- Expand Grout

the grouts

# Expand grout

ASTM C1107

Standard

## Applications

Grouting under the column plate, under the crane rails and electric pylons.
Implementing foundations for heavy and industrial machinery
prefabricated columns
Concrete wharf
Injection into the sheath of tensioned cables
Filling holes, cracks and potholes
Anchoring and bolt system

## properties and effects

Suitable flowability
No separation
Easy pump capability
Resistant to expansion and contraction cycles
Low heat generation during the reaction (low exothermic reaction)
Capable of working up to 10 cm thick
Easy to use

## amount of use

By calculating the cross-sectional volume and considering the specific gravity of the grout, the amount of grout consumption can be determined.But generally, the grout consumption is 2200 kilograms per cubic meter of space.Each 20 kg bag fills about 13 liters of space.

## description

Expanding cement grout is a grout with high initial and final strength and early setting that can be used depending on the ambient temperature and time.This product has two-stage volumetric expansion properties when mixed with water.Initial expansion is the result of sublimation of gases and occurs when the powder is mixed with water.And the second phase is due to the chemical reaction of the mortar setting, which begins one or two days after mixing the mortar.

## how to use

For each 20 kg bag, add about 3.5 liters of water to make a paste-like grout and about 4 to 4.5 liters to make a runny grout.To mix, pour water into a suitable container, gradually add all the powder, and mix with a suitable mechanical mixer for 5 minutes.15 minutes after

## safety

In case of accidental contact with skin or eyes, wash immediately with plenty of fresh water.
If swallowed, seek medical attention immediately.
Avoid direct breathing when mixing grout.
Wear gloves, safety glasses, and a mask.

## keep

Time : one year in original packaging
Conditions: away from cold and frost ,heat and direct and prolonged sunlight.
The best temperature :+10 to +30 degrees

## fisical and chemical characteristics

| | |
|---|---|
| form | liquid |
| color | gray |
| specific weight | ۲/۲ gr/cm³ |
| Ion Chlorine | none |
| 1day compressive strength | ۳۰۰ gr/cm² |
| 3day compressive strength | ۵۰۰ gr/cm² |
| 7day compressive strength | ۶۵۰ gr/cm² |
| 28day compressive strength | ۸۰۰ gr/cm² |
| Expansion start time | ۲۰´ |
| Expansion end time | ۲:۳۰´ |

(GR200)- Expand Grout

# Concrete Repair Mortar

ASTM C1583 | BS EN 12636 | **Standard**

## Applications

Repair and restoration of cracks and fractures
Smoothing the surface
Filling holes and unevenness in concrete
Substrate preparation of floors and walls before installing the covering

## properties and effects

It has good adhesion to all types of cement substrates.
It never shrinks or cracks.
The non-shrinkage of the mortar ensures the bonding of the concrete surface.
It is resistant to freeze-thaw cycles and de-icing agents.

## Amount of use

The amount of concrete repair agent used varies depending on the working environment conditions and the degree of surface damage.But typically, about 1.5 kg of repair agent is required to cover one square meter with a thickness of 1 mm.

## finical and chemical characteristics

| | |
|---|---|
| powder | form |
| gray | color |
| ١/٥±٠/٠٥ gr/cm3 | specific weight |
| none | Ion Chlorine |
| In water | PH |

## descriptions

Concrete repair mortar is a ready-to-use, cement-based repair mortar that, after adding the necessary water, creates a high-strength repair paste.Concrete repair mortar is a non-shrinking mortar that has permeability and long durability.And since it has significant adhesion to the surfaces under the work This material is used to repair and repair surface damage in concrete structures and facades.

## how to use

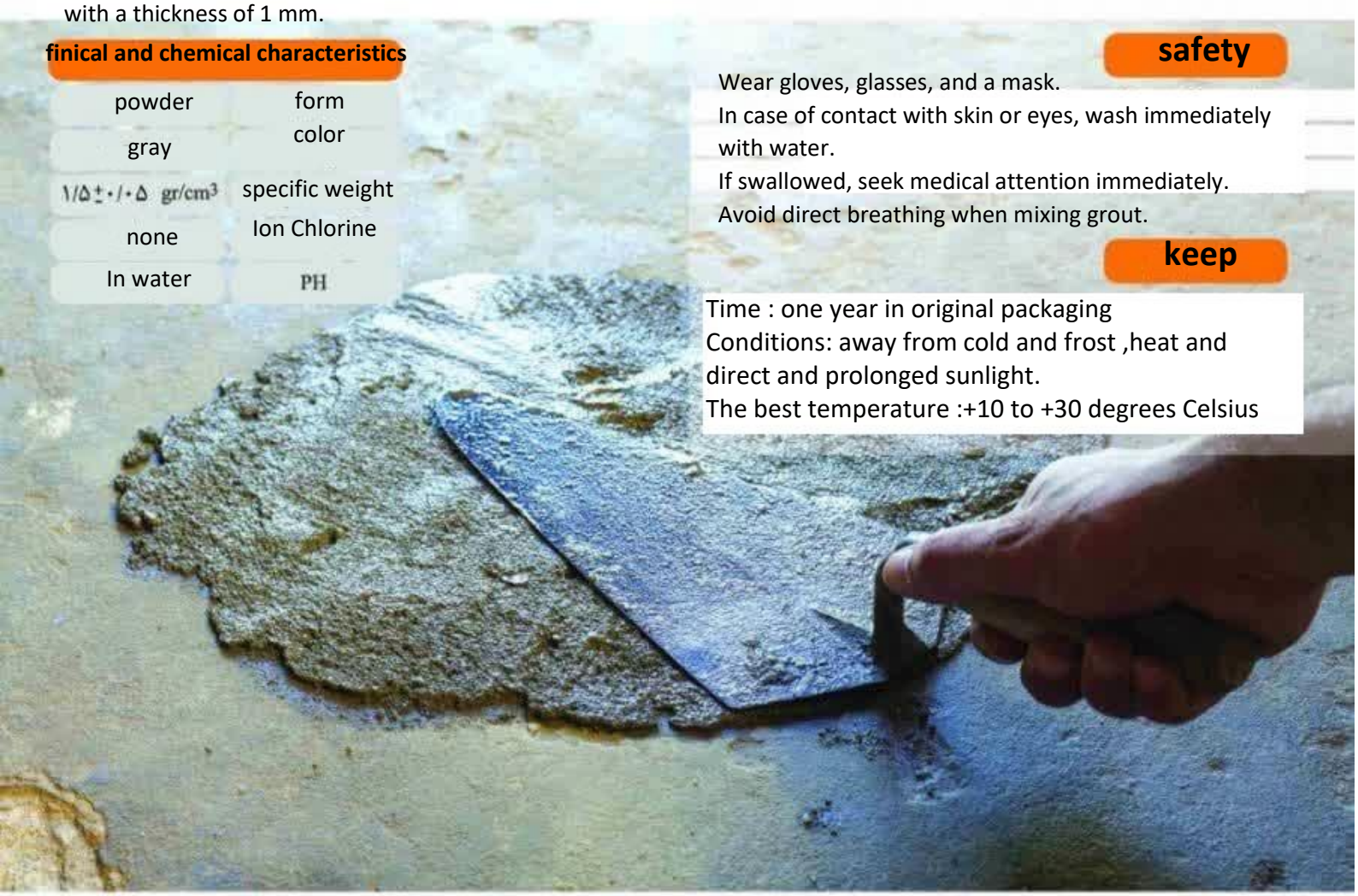
First, the surface under the work must be completely cleaned of any grease and dust. Then, pour 3 volumes of concrete repair powder with 1 volume of water into the mixer and continue mixing until a homogeneous paste is obtained.Apply the resulting mortar to the surface using a trowel or spatula.

## safety

Wear gloves, glasses, and a mask.
In case of contact with skin or eyes, wash immediately with water.
If swallowed, seek medical attention immediately.
Avoid direct breathing when mixing grout.

## keep

Time : one year in original packaging
Conditions: away from cold and frost ,heat and direct and prolonged sunlight.
The best temperature :+10 to +30 degrees Celsius



(CH400)- Expand Grout

the grouts

Concrete surface hardener

ASTM C1353

Standard

## Applications

Leveling and strengthening concrete floors
Flooring for workshops, factories and warehouses
Flooring for parking lots, garages and loading areas
Airplane hangars
Flooring for car washes and commercial environments

## properties and effects

Achieving a smooth and uniform final surface
Creating an impermeable and non-slip surface
Strengthening the strength of concrete against erosion, wear and impact
Resistant to freeze and thaw cycles
Resistant to penetration of destructive agents and chemicals
Increasing the durability of concrete
Ease and speed of implementation
Possibility of combining with concrete colors
Suitable for interior and exterior surfaces of structures
High adhesion and bonding ability to the concrete underneath
Easy to wash and clean

## descriptions

A concrete surface hardener is an additive that is applied to a newly poured concrete surface to improve its abrasion resistance and sometimes to color the concrete surface.Hardening powder reduces concrete disadvantages such as dust and liquid absorption by improving abrasion resistance and reducing surface permeability.

## how to use

After the concreting is complete and the concrete surface is half-dry, proceed with the application.The physical condition of the concrete should be such that when walking, the foot does not sink into the concrete, but the shoe marks are visible on the concrete and concrete sections should not be waterlogged.
Sprinkle the powder on the concrete and smooth the surface using a hand or electric trowel.

## safety

Wear gloves, glasses, and a mask.
In case of contact with skin or eyes, wash immediately with water.
If swallowed, seek medical attention immediately.
Avoid direct breathing when mixing grout.

## Amount of use

Depending on the conditions and surface use, about 3 to 7 kilograms are required to cover one square meter.

## finical and chemical characteristics

| | |
|---|---|
| powder | form |
| Gray | color |
| none | Ion Chlorine |
| ١/٥±٠/٠٥ gr/cm³ | specific weight |

(AC-WP400)
Waterproof Concrete Adhesive

**Construction adhesives**

# Waterproof concrete glue

ASTM C1059 | ISIRI 2930 | **Standard**

## how to use

To increase the impermeability of the surface: The mortar or concrete surface must be clean and free of dust and grease. then mix the waterproof concrete adhesive with water in a ratio of 1 to 1 or 1 to 2. then apply the required surface with a brush, roller or spray gun in 2 applications with an interval of 1 to 3 hours.To increase internal impermeability, mix this product well with water in a ratio of 1:3 to 1:5, then add the dry mortar components to the product. After completion of the work, the concrete should be protected for 5 days with curing agents.In order to bond new mortar to old: To use concrete adhesive for this purpose, it is sufficient to first use this product to impermeability the surface (as explained above), then perform internal impermeability in the new mortar.

## description

Concrete adhesive is a thick polymer liquid sealant in an emulsion state.These adhesives are generally colloidal solutions of various polymers in water that increase the tensile and flexural strength as well as the durability of concrete.The most common use of these materials is for repair work.Because this additive forms a homogeneous and uniform mixture with the mortar which prevents water seepage and separation of fine and coarse grains nd increases the adhesion of fresh concrete to the old mortar underneath This product is water soluble before drying and will not dissolve in water at all after drying.

## safety

Do not swallow or contact with eyes.
In case of contact with skin, wash immediately with water.
If swallowed, seek medical attention immediately.

## finical and chemical characteristics

| | |
|---|---|
| thick liquid | form |
| white | color |
| ۱/۱ gr/cm³ | specific weight |
| none | Ion Chlorine |
| about 7 | PH |
| in water | Solubility |

## properties and effects

Extremely increased adhesion of mortar to concrete
Increasing the adhesion of new concrete or mortar to old concrete or mortar
Increasing the impermeability of concrete against environmental factors
Reducing the effects of shrinkage and contraction
Increased tensile, abrasion and bending resistance up to twice the usual

## Amount of use

The consumption rate is between 0.1 and 0.5 percent of the weight of cement used.For thicknesses less than 10 mils, mix one cup of concrete adhesive with one cup of water and make mortar with it.To create greater strength of the diluted solution, a layer should be applied to the underlying surface of the work, then the mortar should be applied.

## keep

Time : 6 monthes in original packaging
Conditions: away from cold and frost ,heat and direct and prolonged sunlight.
The best temperature :+10 to +30 degrees Celsius

## Applications

Repair of superficial damage
Bonding new concrete or mortar to old concrete or mortar
Strengthen adhesion
Waterproofing of repair mortars
Facade construction and implementation of exposed surfaces

(AC500)
Strength Concrete Adhesive

# Construction adhesives

# Strength concrete glue

ASTM C190 | ISIRI 2930 | **Standard**

## How to use

The concrete binder is diluted with concrete mixing water and then added to the dry concrete components. The material can either be added during the concrete batching process or to the ready-mixed concrete in the truck mixer.For thin thicknesses, mix one cup of glue with one cup of water and make mortar with it.in general, the thinner the mortar or the greater the force applied to it, the higher the percentage of consumption must be to create the necessary adhesion.it is best to apply the diluted solution in a single layer to the underlying surface to create greater adhesion.

## Amount of use

For use in concrete walls and concrete structures, mix 0.6 to 0.9 percent of the weight of the cement used with the required water, then combine with the dry components of the concrete and use.to stain and repair cement surfaces and make repairs, first apply a layer of concrete primer adhesive to the surfaces, then dilute 0.6 to 0.9 percent of the weight of the cement used with the required water and add it to the dry ingredients.

## description

Concrete adhesive is a polymer-based reinforcement made from synthetic resins that reacts easily with water and concrete cement, which increases the tensile and flexural strength as well as durability of concrete.of course, the most important property of this product is increased adhesion. The most common use of these materials is in repair work because this additive forms a uniform and homogeneous mixture with mortar.While preventing water seepage and separating fine and coarse grains, it increases the adhesion of new concrete to old concrete.

## Properties and effects

High adhesion to concrete, building materials and stone
Improved chemical, abrasion, tensile and compressive resistance
Reducing the permeability of concrete
Preventing concrete cracking
Increasing the flexibility and durability of concrete

## Safety

Avoid contact with skin and eyes. Wear gloves and safety glasses. In case of contact with eyes, rinse immediately and consult a doctor.

## Applications

Bonding new concrete to old concrete
Repair of superficial and deep injuries
Can be used in tiling and masonry mortars

## keep

Time : one year in original packaging
Conditions: away from cold and frost ,heat and direct and prolonged sunlight.
The best temperature :+10 to +30 degrees Celsius

## finical and chemical characteristics

| | |
|---|---|
| thick liquid | form |
| white | Color |
| ۱/۱ gr/cm³ | specific weight |
| none | Ion Chlorine |
| about 7 | PH |
| in water | Solubility |

(AT500)- Tile Adhesive

# Construction glues

## Powder tile adhesive

**Standard** ISIRI 12491 ASTM C557

## Descriptions

The powdered tile adhesive is based on polymer - reinforced cement and due to the polymers used in the production of this product is resistant to moisture after drying. This product makes it easy to stick cramic and tile on the floor and body of halls, concrete and cement walls ,and a stick tile on tile, while creating an impermeable and moisture - resistant surface.

## How to use

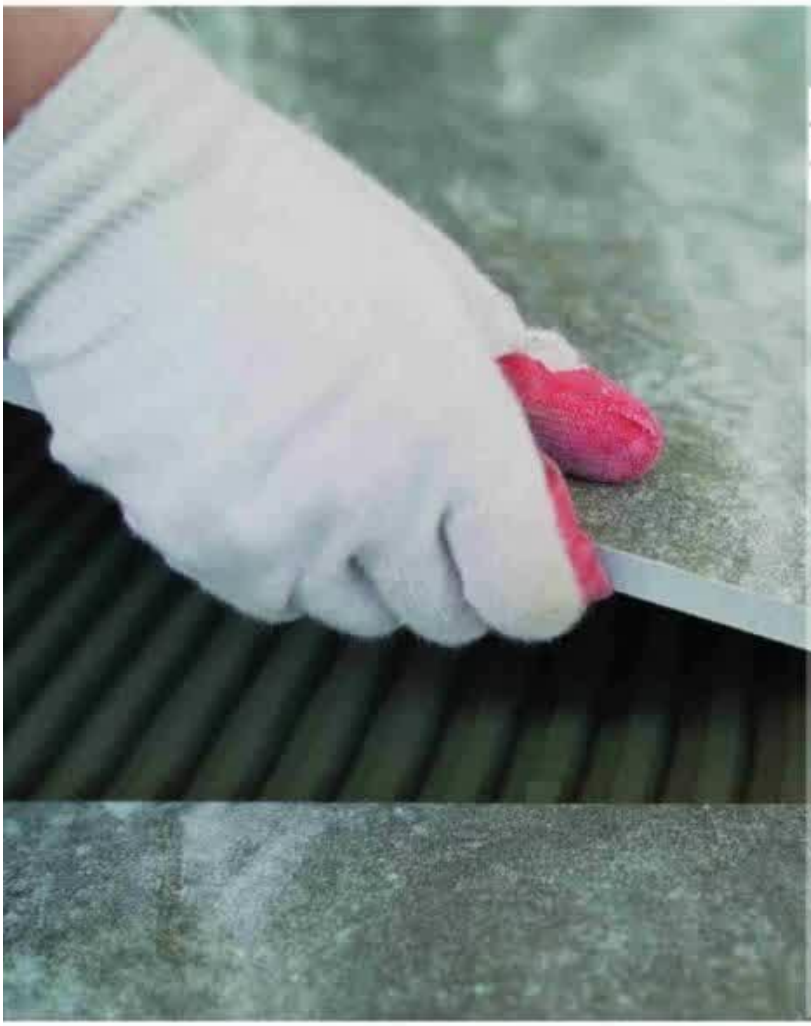
Mix every 4 kilograms of powder with one liter of water and continue mixing until a uniform and homogeneous paste is achieved. Finally, apply the prepared tile adhesive paste to the desired surface with a notched trowel and place the tile on it.the powder mixed with water should be used in less than 60 minutes. Also, after applying the adhesive to the surface, tile installation should be completed within a maximum of 20 minutes.

## Amount of use

The amount of powder tile adhesive used depends on the condition of the surface under the work (porosity and roughness of the surface) and the tile grooves, but on average, the amount used is about 2.5 to 4 kilograms to cover one square meter.

## Properties and effects

High stringth, resistance and adhesion
Volume loss and cracking
Resistant to moisture cold and heat
Easy to use and high speed of execution
Slip resistant



## safety

Due to its alkaline properties, it is recommended to use goggles and gloves when working with it.
In case of skin contact, wash with soap and water.
In case of contact with eyes, wash immediately.

## Applications

Installing various types of tiles and ceramics on various surfaces
Installing ceramic tiles on surfaces that are directly in contact with water and moisture
Ability to install tiles on tiles

## keep

Time : one year in original packaging
Conditions: away from cold and frost ,heat and direct and prolonged sunlight.
The best temperature :+10 to +30 degrees Celsius

## finical and chemical characteristics

| | |
|---|---|
| form | powder |
| Color | white and gray |
| specific weight | ۱/۶ gr/cm³ |
| Ion Chlorine | none |
| Tensile strength | ۰/۶۸N/mm |

(AP400)- Pointing Adhesive **Construction adhesives**

# strapping powder

**Standard** BS EN13888 ISIRI 12491

## How to use

After installing the tile, ensure that the initial setting is achieved before grouting begins. Before grouting, remove any possible contamination from inside the grout and clean the tile with a damp sponge. Then, using a rubber spatula, fill the grout completely.
For floor jointing: Use 1 mm to 15 mm of fluid grout or stiff paste.
For wall joints: Use 3 to 15 mm of very stiff paste.

## Amount of use

The amount of jointing powder used is proportional to the distance between the installed tiles, but generally for 15 x 15 tiles with 3 mm joints, approximately 250 grams of powder is sufficient for one square meter of surface.

## Descriptions

Grouting and sealing powder is a cement-based product consisting of organic chemicals and mineral powders that creates a strong and uniform bond between tiles, and the use of this powder also increases adhesion and impermeability to moisture.using ready-made compounds for jointing, depending on the conditions and characteristics of the work site and the type of parts and materials used, can play a more effective and efficient role in improving quality, increasing durability and strength, providing beauty, and speeding up execution.

## Properties and effects

Excellent adhesion to ceramic and tile walls
Impermeability to water, humidity and freeze/thaw cycles Easy to apply without shrinkage and high adhesion


## Safety

Avoid breathing dust from this product.
Avoid direct contact with skin and eyes.

## Applications

For grouting all types of tiles, mosaics, ceramics and stone.
Sealing cement and concrete parts
For sealing all seams and joints up to a depth of 15 mm.

## keep

Time : one year in original packaging
Conditions: away from cold and frost ,heat and direct and prolonged sunlight.
The best temperature :+10 to +30 degrees Celsius

**finical and chemical characteristics**

| | |
|---|---|
| powder | form |
| customized | color |
| ۱/۲ gr/cm³ | specific weight |
| none | Ion Chlorine |

(AB400)- Cement Block Adhesive

Construction adhesives

# Glue block

## Standard

ASTM C1660

ISIRI 12491

## Properties and effects

Increasing the adhesion durability of aerated concrete blocks
Increasing the level of the wall
Increasing the execution speed
Reducing the weight of the structure and mortar required for laying blocks by up to 75%
Retaining water in mortar
Reducing the required mortar thickness
Structural compactness and its application

## Applications

Gluing AAC blocks
Bonding light and heavy cement blocks
Bonding clay and brick blocks
Gluing the Lika insulation block

## Descriptions

A product prepared based on cement and mineral powders, powdered resins, and special additives, which is used to bond various types of blocks and comes in two colors: white and gray.

## How to use

Each 20 kg bag of block adhesive should be mixed with 5 to 6 liters of water using an electric mixer. Slowly add the powder to the water and mix until a uniform and homogeneous mortar is obtained.
Let the mortar rest for 5 minutes and after a little mixing it is ready to use. Using a trowel, apply the adhesive to the desired surface and install the blocks within a maximum of 20 minutes.

## Safety

Use of goggles and gloves is mandatory. In case of eye contact, rinse with clean water for at least 15 minutes. In case of skin contact, rinse immediately.

## Amount of use

The amount of consumption depends on the area and thickness of the Heplex blocks.generally, a minimum of 1.5 and a maximum of 4 kilograms of adhesive powder is used per square meter.however, this amount varies depending on the type of structure, the type of blocks, and the climate of the construction site.

## keep

Time : 6 monthes in original packaging
Conditions: away from cold and frost ,heat and direct and prolonged sunlight.
The best temperature :+10 to +30 degrees Celsius

## finical and chemical characteristics

| | |
|---|---|
| powder | form |
| white and gray | Color |
| ۱/۶ gr/cm$^3$ | specific weight |
| none | Ion Chlorine |
| 30 minutes | workability time: |
| ۰/۶۸ Mpa | tensile strength |

(CHA1000)- Unti Freez **Concrete chemical additives**

# Antifreeze and quick-setting concrete

**Standard**

ASTM C494 ISIRI 2930

## Amount of use

The exact amount of powdered and liquid concrete quick-setting admixture used depends on the internal temperature of the concrete, the type of cement, the amount of water in the concrete mix design, and the speed of the cement dehydration reaction.and according to the desired time for the onset of setting or premature resistance , this product can be added to the concrete mix at a rate of 0.1 to 0.7 percent by weight of cement.amounts of less than 0.3% of this product are recommended for early mold opening and more than 0.3% for instant set.

## Applications

Creating precast concrete parts
Concreting in cold climates
Concreting for places where fast setting is required
Concrete pouring for the construction of piers, bridges, prefabricated parts, etc.
Concreting on sloping surfaces, uneven surfaces and embankments
Concreting to prevent water penetration into concrete sections
Canal and tunnel lining

## finical and chemical characteristics

| | |
|---|---|
| form | powder/liquid |
| Color | milky |
| specific | ۱/۲ gr/cm3 |
| PH | ۱۲ / ۱۱ |
| Ion Chlorine | none |

## Descriptions

A type of additive that is available in both powder and liquid forms.this chemical facilitates the dissolution of lime and alumina in the mixing water and accelerates the dewatering of silicates.thus, the setting time is reduced and the hardening process of cement in concrete and mortar is accelerated.

## Properties and effects

Reducing the initial setting time of concrete
Achieving initial and final strength of concrete in the shortest time
Fast mold opening and fast loading of structures
Increase concrete strength within 3 days up to 35% of final strength
Reduce concrete final finishing time
Increase concreting speed
Increase concrete adhesion

## Safety

In case of contact with skin or eyes, rinse immediately with plenty of fresh water.
If swallowed, seek medical attention immediately. Avoid inducing vomiting. This material is not flammable.
This material is not considered hazardous or harmful to health or the environment, however, it should not be swallowed or come into contact with the eyes.

## How to use

Powdered and liquid concrete admixtures should be added to the mix after the concrete is ready.and after complete mixing concreting operations should be carried out quickly.

## keep

Time : one year in original packaging
Conditions: away from cold and frost ,heat and direct and prolonged sunlight.
The best temperature :+10 to +30 degrees Celsius

# Liquid foam concrete

ASTM C482 **Standard**

## How to use

Protein: Each liter of protein foam liquid is mixed with 20 liters of water, and the resulting product is used as a creamy foam for mixing with concrete.
Chemical: Each liter of chemical foam liquid is mixed with 25 liters of water and the output product is used as raw foam for mixing with concrete.

## Applications

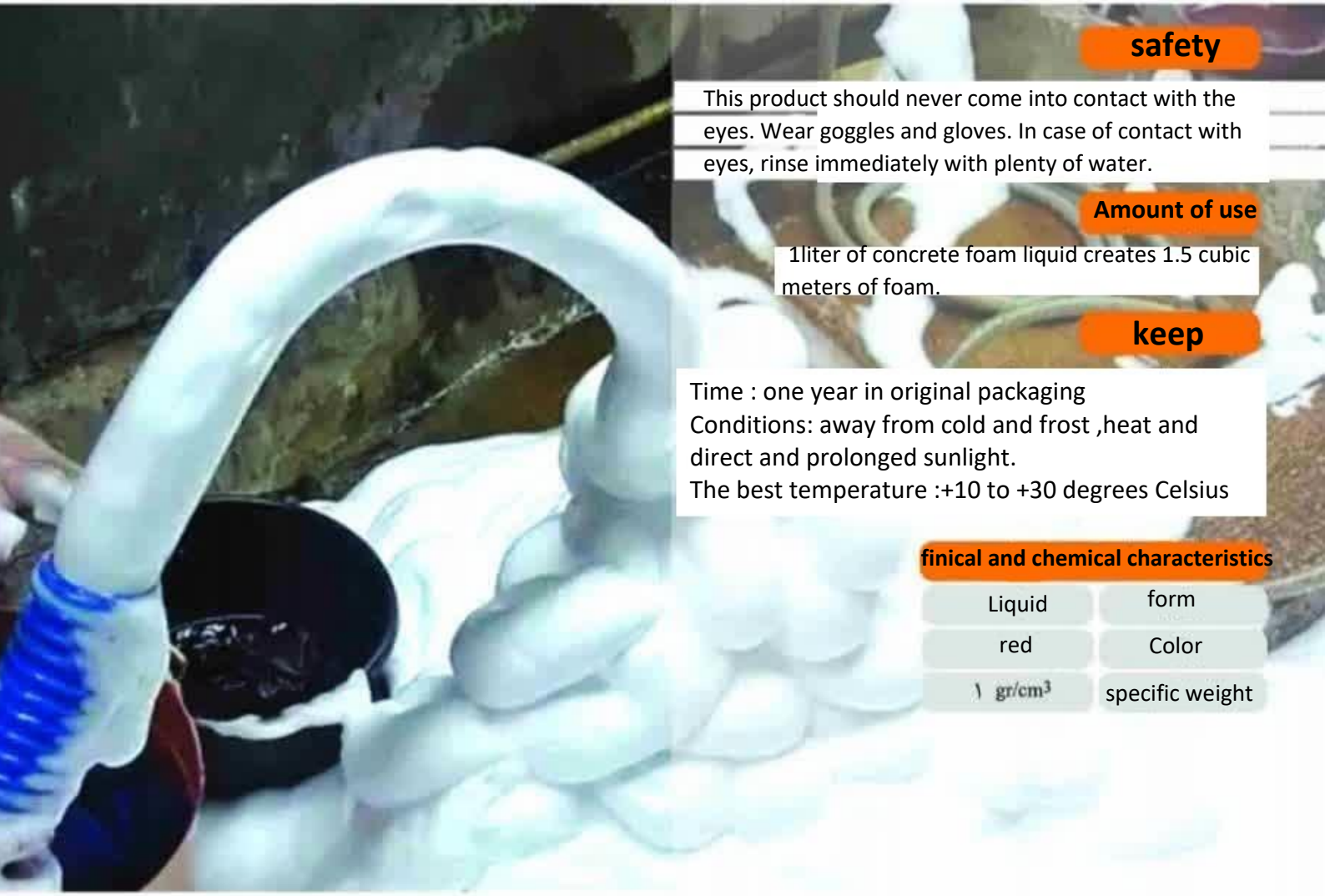
Use in concreting facilities Concreting in humid areas of the country Concreting floors and rooms In roof slopes and flooring Lightweight block production

## Descriptions

These materials are produced in two forms: protein foam liquid and chemical foam, which contain protein compounds and chemical solvents and have the ability to create small, compact, and stable bubbles measuring 0.3 to 0.8 mm. it is mixed with water in a foam generator at a ratio of 3 to 5, and the resulting product is used as a creamy foam for mixing with concrete.

## Properties and effects

Neutral (no impact on concrete lightweighting facilities) Concrete lightweighting Density can be reduced due to no negative impact on concrete strength
Increase in concrete strength up to 1.4 MPa due to the production of tiny bubbles Fast setting of the concrete and drying at very low temperatures



## safety

This product should never come into contact with the eyes. Wear goggles and gloves. In case of contact with eyes, rinse immediately with plenty of water.

## Amount of use

1liter of concrete foam liquid creates 1.5 cubic meters of foam.

## keep

Time : one year in original packaging
Conditions: away from cold and frost ,heat and direct and prolonged sunlight.
The best temperature :+10 to +30 degrees Celsius

## finical and chemical characteristics

| | |
|---|---|
| Liquid | form |
| red | Color |
| ١ gr/cm$^3$ | specific weight |

(CHQ3000)- Curing

# Concrete chemical additives

## Curing

**Standard** ASTM C309 ASTM C156

## How to use

Curing should be carried out as soon as concreting is completed or simultaneously with opening the forms. in case of delay, it is necessary to first spray and saturate the concrete surface and then carry out curing.in tropical regions with large-scale concreting, it is necessary to have a thicker film of curing agent on the surface to resist the evaporation pressure of concrete water.therefore, spraying the curing agent on the surface should be done in two stages with intervals of about 0.5 to 1 hour.

## Amount of use

Shake the concrete curing liquid well before use, then spray it using a pump sprayer in a back and forth motion onto the concrete that has recently lost surface water.1 liter of the aforementioned curing agent is capable of covering 4 to 5 square meters of surface, creating a layer 5 to 10 microns thick.

## Descriptions

Curing, by creating a thin layer on the surface of the concrete after the completion of the concreting operation, reflects a large portion of sunlight, prevents rapid evaporation of concrete water, prevents concrete cracking, and is an important factor in increasing the final quality of the concrete.

## Properties and effects

Reducing the rate of concrete water evaporation by creating a thin layer on the outer surface of the concrete
No need for continuous spraying and keeping the concrete moist
Retaining the concrete mixing water to carry out the hydration reaction
Prevent shrinkage and cracks caused by rapid evaporation of concrete water
Reduce surface permeability of concrete Prevent surface peeling of concrete
No change in the color of concrete surfaces
Reduce concreting costs due to no need for dewatering after construction

## Safety

Wear a mask, gloves, and safety glasses when performing the curing process. In case of accidental contact with eyes or skin, rinse with plenty of fresh water. In case of ingestion or contact with mouth, consult a doctor immediately.

## Applications

Concrete pouring in windy areas and tropical and dry areas
Concrete pouring in large areas including airport runways, open water channels Concrete pouring in areas where concrete curing by water spraying is not possible.

## keep

Time : one year in original packaging
Conditions: away from cold and frost ,heat and direct and prolonged sunlight.
The best temperature :+10 to +30 degrees Celsius

## finical and chemical characteristics

| | |
|---|---|
| Liquid | form |
| Colorless | Color |
| 1/1 gr/cm³ | specific weight |
| none | Chlorine ion |
| about 8 | PH |
| in water | Solubility |

(cha5000) **Concrete chemical additives**

# instant setting concrete

## description

a solution that when added to cement rocket rapidly reduces its setting time

## Amount of use

0/2 to 0/5 percent of cement weight depending on the speed and time required for setting

## Properties and effects

high setting speed
ease of use of the product
ability to change the setting time with concrete according to it's type of use
increase the final strength of concrete and cement mortar

## how to use

first clean the surface under the work and remove loose parts collect excess water from the environment then add the bind there to the concrete and apply

## keep

Time :1 year in original packaging
The best temperature :+10 to +30 degrees Celsius

## applications

preventing severe water leakage in concrete structures،reservoirs and tanks،basements
shotcrik mortar
precast concrete
Rapid drying and sealing of concrete in repair areas

## safety

avoid breathing dust from this product
Avoid Direct contact with a skin and eyes

## المواصفات الفيزيائيه الكيميائية

| | |
|---|---|
| state | liquid |
| color | No color |
| specific weight | ١/٠١ gr/cm³ |
| Chlorine ion | none |

# mortar

(M-T30100)

**Waterproof thatch with concrete strength**

## Applications

traditional façade
implementation restoration of old textures and historical monuments
implementation of garden faceds

## Amount of use

each 20 kilogram bag covers approximately 2 to 2/5 square metres of surface area

## how to use

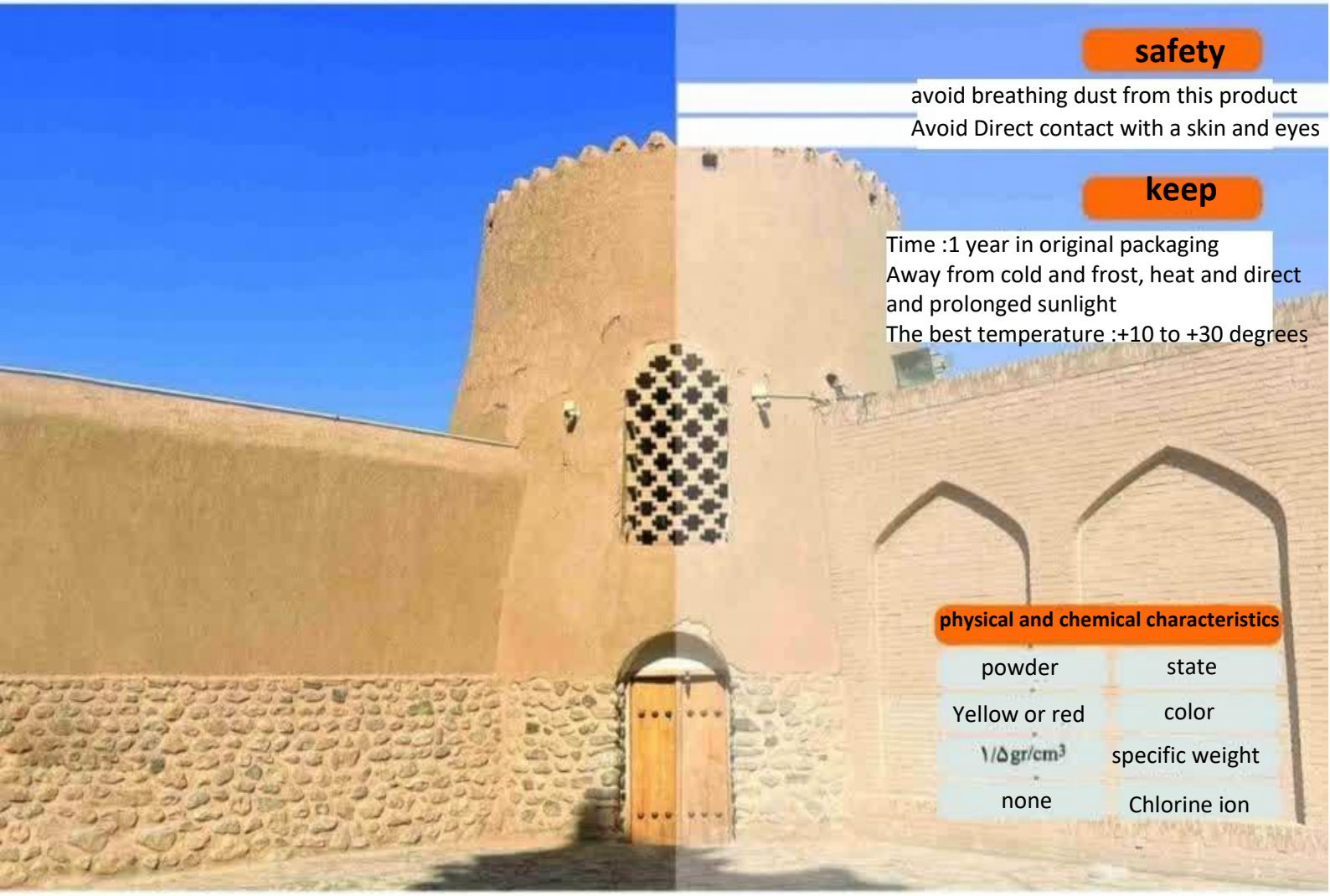
mix 20 kilogram of a straw bag with about 4 kg of water to create a uniform paste and apply it on the surface with a throw trowel after 24 hours of application, water the surface to improve the tensile strength.

## وصف

Concrete strength waterproof straw is a type of ready-made mortar in the construction industry that is usually composed of cement mineral pigments polymeric materials and straw.

## Properties and effects

compressive strength at the level of Lean concrete
resistance to heat and cold
optimal adhesion to cement plaster brick and block surfaces
Resistant to water and moisture
no peeling or cracking in different weather conditions
without changing the color in different weather conditions
Tensile strength and surface adhesion of about one MPA
Very easy to apply with a trawel



## safety

avoid breathing dust from this product
Avoid Direct contact with a skin and eyes

## keep

Time :1 year in original packaging
Away from cold and frost, heat and direct and prolonged sunlight
The best temperature :+10 to +30 degrees

**physical and chemical characteristics**

| | |
|---|---|
| powder | state |
| Yellow or red | color |
| ۱/۵gr/cm³ | specific weight |
| none | Chlorine ion |

(M-B100)- Mortar

# mortar

**Ready-made insulation mortar**

ASTM C928

## Standards

## applications

masonry mortar porcelain tiles of all types of blocks and bricks
used for porcelain walls Lika black

## amount of use

the mortar required for each square meter of porceline blocks with a mortar layer thickness of 1/5 to 2 centimeters filling vertical joints is 1/2 bag for a 20 centimeter wall with Lika blocks , 1 bag for a 15 centimeter wall with Lika blocks and 0/8 bag for a 10 centimeter wall with Lika blocks.

## How to use

mix the contents of a 25 kg package of ready-made mortar with 6 to 8 liters of water depending on the intended application and use

## Descriptions

It is made from a combination of Binding materials search as cement or gypsum And a filler Such as fine And coarse Lightweight Aggregates Insolution and sand

## Properties and effects

preventing waste and accessive use of cement using the right amount and preventing mortar from being thrown away
reducing structural and load bearing costs due to lightening and increasing the speed of Execution reducing building energy costs
Reducing labor costs possibility of transferring excess mortar in appropriate packaging to other floors or construction sites

## safety

avoid breathing dust from this product
Avoid Direct contact with a skin and eyes

## keep

Time :1 year in original packaging
Away from cold and frost, heat and direct and prolonged sunlight
The best temperature :+10 to +30 degrees Celsius

## physical and chemical characteristics

| | |
|---|---|
| powder | stata |
| Gray | color |
| ۱/۲ gr/cm³ | specific gravity |
| none | Chlorine ion |
| ۸ Mpa day 7 | compressive strength |

# Takin Vista Espadana

National Standard Organization of Iran
Standard number of tile adhesive
6398150028

Iranian Concrete Association

Association of manufacturers
Construction industry chemicals

National Standard Organization of Iran
Concrete admixture standard number
6397762028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