

PORTLAND

CONSTRUCTION CHEMICALS

To alter the properties of Portland Cement from ASTM C 150 into various kinds and various standards of cement-mortar and concrete products and applications.

\ PORTLAND	PROOF	WATER PROOFER	ASTM D5295 AND C1384(Water
Repellent)			
\ PORTLAND	PLAST	MORTAR PLASTICIZER	ASTM C 1329
\ PORTLAND	STUCCO	DECORATE PLASTICIZER	ASTM C 1328
\ PORTLAND	LEVEL	FLOOR LEVELLING ADMIXTURE	ASTM C 1017 TYPE 2
\ PORTLAND	TERRAZ	TERRAZZO GRINDING AIDS	ASTM C 91 TYPE M
\ PORTLAND	SUPER	SUPERPLASTICIZER	ASTM C 494 TYPE F AND 1017 TYPE 1
\ PORTLAND	PUMP	SHOTCRETE AND PUMPING AIDS	ASTM C 1017 AND C 1059
\ PORTLAND	COLOR	COLOR PIGMENTS FOR CEMENT	ASTM C 979
\ PORTLAND	RAPID	IMMEDIATE SET ADMIXTURE	ASTM C 1102
\ PORTLAND	ACC	ACCELERATE WATER REDUCER	ASTM C 494 TYPE C
AND E			
\ PORTLAND	BOND	BONDING ENHANCE ADMIXTURE	ASTM C 1384(Bond Enhancer) AND C
1438			
\ PORTLAND	GLUE	CEMENT ADHESIVE ADMIXTURE	USAS A 118.1
\ PORTLAND	ANTI	ANTI TIDAL WASH OFF ADMIXTURE	ASTM C 1384 (Bond Enhancer)
\ PORTLAND	RETARD	RETARD WATER REDUCER	ASTM C 494 TYPE D
AND G			
\ PORTLAND	EXTEND	EXTEND SET ADMIXTURE	ASTM C 494 TYPE B
\ PORTLAND	AIR	AIR ENTRAIN ADMIXTURE	ASTM C 260
\ PORTLAND	LIGHT	LIGHT CELLULAR ADMIXTURE	ASTM C 869
\ PORTLAND	COAT	ACRYLIC POLYMER	ASTM C 1315 TYPE 1
\ PORTLAND	NORM	NORMAL WATER REDUCER	ASTM C 494 TYPE A
AND F			
\ PORTLAND	MOULD	MOULD AND FORM RELEASER	ASTM C 309
\ PORTLAND	CURE	CURING COMPOUNDS	ASTM C 309
\ PORTLAND	POLYMER	POLYMER MODIFIED CONCRETE RESIN	ASTM C 1438
\ PORTLAND	EPOXY	EPOXY-RESIN FOR CONCRETE	ASTM C 881 AND ANSI
A 118.3			
\ PORTLAND	GROUT	NON SHRINK GROUT CEMENT	ASTM C 1107
\ PORTLAND	PATCH	MULTI-PURPOSE RAPID SET GROUT	ASTM C 928
\ PORTLAND	INSULATE	THERMAL INSULATING CEMENT	ASTM C 196
\ PORTLAND	TILE	TILE CEMENT ADMIXTURE	USAS A 118.1
\ PORTLAND	SHOT	SHOTCRETE ADMIXTURE	ASTM C 1141 TYPE 1
\ PORTLAND	FLOOR	METALLIC FLOOR HARDENER	ASTM C 779
\ PORTLAND	RETAIN	CONCRETE WATER RETAINING POLYMERS	ASTM C1384(Bond &
Workability Enhancer)			
\ PORTLAND	FIBRE	FIBRE FOR REINFORCE CONCRETE	ASTM C 1116
\ PORTLAND	MEMBRANE	POLYMERIC WATERPROOF CEMENT	ASTM C 932, C 1438
AND D 5295			
\ PORTLAND	SILICA	SILICA-FUME FOR CONCRETE	ASTM C 1240
\ PORTLAND	MIX	TAILOR-MADE ADMIXTURES	STANDARDS SPECIFIED

BY THE USERS



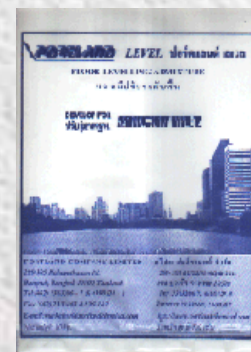
\ PORTLAND PROOF is a mixture of powder waterproof chemicals for mixing in mortar or concrete. These chemicals included the void dense materials, cement dispersion agents, dump-proof hydrophobic substances, cement water reducing agents, air detraining agents and polymeric film forming impregnation substances to create the tight water structure for permeability resistance of water at the highest possibility of that cement ratio level. Otherwise if only certain water resistance is need, cost of cement may be saved.
COMPLY WITH: ASTM D 5295 AND C 1384 (Water Repellent)
USAGE: 1 pack (100 gm) per 1 bag (50 kg) of cement
CONTENT: 1 pack = 100 gm 1 box = 200 pack

\ PORTLAND PLAST is a mortar plasticizer for rendering and plastering. It will increase the workability of the cement to become a creamy, softly, smooth, slippery and sticky mortar. Both green strength and bonding strength highly increase as well as water retention. The result will be the very good quality surface. Cost saving in both labor costs saving from the better workability and no water curing is needed and also the material-cost saving by increasing the sand cement ratio.
COMPLY WITH: ASTM C 1329
USAGE: 1 pack (100 gm) per 1 bag (50 kg) of cement
CONTENT: 1 pack = 100 gm 1 box = 200 pack



\ PORTLAND STUCCO is a mortar plasticizer for decorative craft, casting, forming and texturing in both interior and exterior. When it mixed into cement, it will change into gelling plastic cement of high workability, creamy soft, form and re-formable, prolong setting time, extra fine smooth surface, non-curing is needed by high water retention, high bonding and compressive strength. Cement colors can be added as well as the marble like decorative can be made.
COMPLY WITH: ASTM C 1328
USAGE: 1 pack (100 gm) per 1 bag (50 kg) of cement
CONTENT: 1 pack = 100 gm 1 box = 200 pack

\ PORTLAND LEVEL is chemical compound to mix into cement-sand mixture to create the self leveling seamless concrete floor topping from the property of very high flowability, low surface tension, high plasticity and fluidity. Even at normal water cement ratio, the liquid concrete floor able to made the self adjustment to zero slope level by gravitational force with high strength, smooth, no waving and without micro cracking cause by expanding or shrinking of the concrete floor.
COMPLY WITH: ASTM C 1017 TYPE 2
USAGE: 1 pack (100 gm) per 1 bag (50 kg) of cement
CONTENT: 1 pack = 100 gm 1 box = 200 pack



\ PORTLAND TERRAZ is a mixture of powder chemicals for mix into Portland cement to create the properties of ASTM C 91 type M and also get the properties that desired for the terrazzo floor's grinding aids. These properties include higher bonding strength, weather durability, waterproofing, stain and fungi prevention and water retaining. These properties provide crack free floor even at the high heat expansion area. It save cost by eliminating joints and sealer, enable to add higher amount of marble aggregate and save white cement cost as well as easier to grind with shorter setting time and no curing is needed.
COMPLY WITH: ASTM C 91 TYPE M
USAGE: 1 pack (100 gm) per 1 bag (50 kg) of cement
CONTENT: 1 pack = 100 gm 1 box = 200 pack



PORTLAND SUPER is a special blended super-plasticizer with highest range of water reducing effect to develop the highest possible strength of mortar and concrete as well as the flow ability, pump ability, workability, normal setting time, water permeability resistance. These qualifications made it ideal for engineering works where ordinary high range water reducing admixtures can not be done.
COMPLY WITH: ASTM C 494 TYPE F AND ASTM C 1017 TYPE 1
USAGE: 1 pack (100 gm) per 1 bag (50 kg) of cement
CONTENT: 1 pack = 100 gm 1 box = 200 pack

PORTLAND PUMP is a powder pumping aids for blowing, shooting or pumping mortar or concrete for further or higher distance with lower the pumping energy required and prevent pipeline blockage as well as prevent water cement separation. These properties enable the mortar or concrete to extend the mix-design to a larger range.
COMPLY WITH: ASTM C 1017 AND C 1059
USAGE: 1 pack (100 gm) per 1 bag (50 kg) of cement
CONTENT: 1 pack = 100 gm 1 box = 200 pack

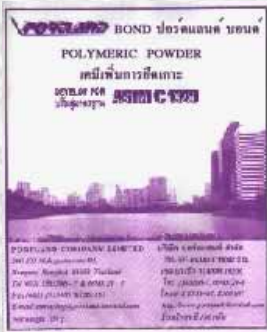


PORTLAND COLOR is mother pigments powder for mix in white cement and ordinary cement and concrete products. These highly alkaline bear-able pigments include red, yellow, blue and black in the ASTM C 979 standard. For white-color, white cement should use instead.
COMPLY WITH: ASTM C 979
USAGE: Pigment with cement normally 3-10% to the design color then using
CONTENT: 1 pack = 1000 gm 1 box = 20 pack

PORTLAND RAPID is ultra rapid set accelerating admixture to mix dry with mortar or concrete. The dry mixed will create set within minutes when mix with water. The application including tunnel, mining, pipelines, underwater, overhead works and rapid repairs such as road night repair for the moving traffic which required rapid stabilization, rapid high early strength as well as anti-wash off and anti-water seepage properties. It can be applied with spraying, injecting, plastering or grouting.
COMPLY WITH: ASTM C 1102
USAGE: 1 pack (2000 gm) per 1 bag (50 kg) of cement
CONTENT: 1 pack = 2000 gm 1 box = 10 pack

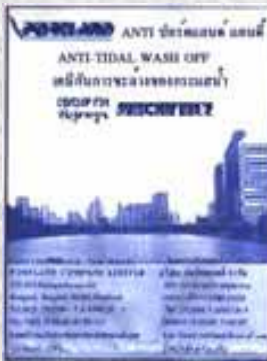


PORTLAND ACC is a non-chloride type accelerate water-reducing concrete powder admixture to create high early strength and accelerate the concrete setting time for working faster and de-molding quicker without decrease in long term final strength. When compare to the high early strength Portland cement type 3, by using ordinary Portland cement type 1 plus this admixture will have higher early strength and if mix with type 3 will have even higher strength.
COMPLY WITH: ASTM C 494 TYPE C AND E
USAGE: 1 pack (500 gm) per 1 bag (50 kg) of cement
CONTENT: 1 pack = 500 gm 1 box = 40 pack



PORTLAND BOND is a polymeric-powder cement admixture for cement mortar and concrete for improve bonding strength, improve tensile strength, improve flexural strength and improve cohesive adhesion to the other surfaces. The applications is including bonding with reinforce steel, reinforce fiber, old to fresh surface, as adhesive to bonding bricks, tiles, marble, rocks, ceramics, etc.
COMPLY WITH: ASTM C 1384 (Bond Enhancer) and C 1438
DOSAGE: 1 pack (100 gm) per 1 bag (50 kg) of cement.
USAGE: Mix with cement and aggregates then mix with mixing water.
CONTENT: 1 pack = 100 gm 1 box = 200 pack

PORTLAND GLUE is special designed polymeric glue powder for mix with mixed cement to become tile cement for bonding or grouting ceramic wall and floor tile, mosaic, marble, granite, sanitary ware or stone. The mixed cement mortar become DRY-SET Portland Cement Mortar according to USAS A118.1 the same as PORTLAND TILE but in the form of admixture for convenience and save to transport without carry cement.
COMPLY WITH: USAS A 118.1
USAGE: 1 pack (100 gm) per 1 bag (50 kg) of cement
CONTENT: 1 pack = 100 gm 1 box = 200 pack



PORTLAND ANTI is special design powder admixture for anti-tidal wash off cement mortar and concrete to be used under water or tidal environment. The admixture is containing the suitable amounts of superplasticizer, bonding polymers, set control admixture, pumping aids, waterproof, sulfate-resistance admixture etc. The cement mortar or concrete become high workability both in high fluidity and high cohesiveness as well as promote higher compressive strength, tensile strength, flexural strength and bonding strength for this anti-tidal wash off cement mortar or concrete.
COMPLY WITH: ASTM C 1384 (Bond Enhancer)
DOSAGE: 1 pack (2000 gm) per 1 bag (50 kg) of cement.
USAGE: Mix with cement and aggregates then mix with mixing water.
CONTENT: 1 pack = 2000 gm 1 box = 10 pack

PORTLAND RETARD is the retard water-reducing concrete admixture to change the following properties:

1. With the same mix-design, workability will be increased.
2. Reduce in water with the same workability, strength will be increase.
3. Reduce in water with the same strength and workability, cement content can be save.

The retard setting time between 1 and 3.30 hours which comply with both ASTM C 494 type D and the higher range type G mean that higher strength, higher workability or save more cement cost.
COMPLY WITH: ASTM C 494 TYPE D AND G
USAGE: 50 ml Per 1 bag (50 kg) of cement
CONTENT: 1 bottle = 5 liter 1 box = 4 bottle 1 drum = 200 liter



PORTLAND EXTEND is retarding admixture for the extension of the setting time of concrete. It can be used alone or use with other admixtures such as Portland Retard or Portland Proof to prolong the setting time. The normal dosage is between 50-100 cc. However the actual dosage depend on the actual usage such as oil well cement is the combination of portland super and dosages of portland extend depend on the temperature and the time for transportation.
COMPLY WITH: ASTM C 494 TYPE B
USAGE: 50 ml Per 1 bag (50 kg) of cement
CONTENT: 1 bottle = 5 liter 1 box = 4 bottle 1 drum = 200 liter



\ PORTLAND AIR is the air-entraining admixture to increase the durability of concrete such as atmospheric conditions (freeze-thaw, tide or desert day and night conditions resistance), sulfate penetration and protection of steel reinforcement as well as increase in workability, mix stability and water reduction. However overdose or use combine with other admixtures are not recommended due to decrease in strength.

COMPLY WITH: ASTM C 260

USAGE: 50 ml Per 1 bag (50 kg) of cement

CONTENT: 1 bottle = 5 liter 1 box = 4 bottle 1 drum = 200 liter

\ PORTLAND LIGHT is air entrained, lightweight, cellular concrete admixture to mix in mortar or concrete with or without lightweight aggregate for fire, heat and sound insulators as well as nail-able and saw-able. Normal structural density is range between 0.8-1.5 and for insulator-only is between 0.3-0.8 depend on the usage-strength of the designed mix and form-generating efficiency. Micro-balloon forming substance for increasing strength at the same density is available upon request.

COMPLY WITH: ASTM C 869

USAGE: 50 ml Per 1 bag (50 kg) of cement

CONTENT: 1 bottle = 5 liter 1 box = 4 bottle 1 drum = 200 liter



\ PORTLAND COAT is a transparent ready to use water-based acrylic co-polymeric resin for rigid, high gloss, abrasive resistance, chemical resistance, waterproof, lightproof and weather durability protective hard film to coat on the surface of mortar, concrete and stones. It can be mix with any cement colors and can be applied many layers for thicker film. For low maintenance, last long, beauty, smooth and easy to clean up surface, this is the ideal resin to meet these requirements.

COMPLY WITH: ASTM C 1315 TYPE 1

USAGE: brushing or rolling the resin on the require surface.

CONTENT: 1 bottle = 5 liter 1 box = 4 bottle 1 drum = 200 liter

\ PORTLAND NORM is the normal water-reducing concrete admixture to change the following properties:

1. With the same mix-design, workability will be increased.
2. Reduce in water with the same workability, strength will be increase.
3. Reduce water with the same strength and workability, cement content can be save.

The normal setting time between 1 and 1.30 hours which comply with both ASTM C494 type A and the higher range type F mean that higher strength, higher workability or save more cement cost.

COMPLY WITH: ASTM C 494 TYPE A AND F

USAGE: 50 ml Per 1 bag (50 kg) of cement

CONTENT: 1 bottle = 5 liter 1 box = 4 bottle 1 drum = 200 liter



\ PORTLAND MOULD is liquid admixture for brush or spray on metal or wood mould for taking apart without any strain. This admixture can prolong mould life, cure concrete and protect fresh concrete from dump or rain even with very thin layer which save in both material and labor cost.

COMPLY WITH: ASTM C 309

USAGE: dilute as mention and spray one layer to mould cavity or form surface.

CONTENT: 1 bottle = 5 liter 1 box = 4 bottle 1 drum = 200 liter



\ PORTLAND CURE is concrete curing compound for spray on the just lay down fresh concrete to keep the hydration of moisture do not evaporate out of the concrete and keep enough mixing water needed for the water cement reaction to provide toward the maximum strength. Beside this curing property, it also performs as dump-proof of rain to penetrate into the fresh concrete. There are two types; translucent (ASTM C 309 type 1) and white pigment (ASTM C 309 type 2) for s e l e c t i o n .

COMPLY WITH: ASTM C 309

USAGE: spray or apply on the surface of fresh concrete.

CONTENT: 1 bottle = 5 liter 1 box = 4 bottle 1 drum = 200 liter

\ PORTLAND POLYMER is special designed polymer for polymer-modified mortar and concrete. The polymeric co-polymer resins impregnate into the void spaces of mortar and concrete to increase excellent flexural strength, tensile strength, bonding strength, abrasive resistance, waterproof, chemical resistance and durability. The applications are as the following: tile grout, tile adhesive, stucco, pipeline liner, skid-resistance pavement, swimming pool coating, floor leveling, skid-resistance steel coating, antirust, joint filler, joint sealant, water plug, overlays for coating, patching and repairing for bridges, high way, parking pavement, ship deck, stadium, b u i l d i n g , e t c .

COMPLY WITH: ASTM C 1438

DOSAGE: Depend on the application.

USAGE: Mix with the mixing water before mix with cement and aggregates.

CONTENT: 1 bottle = 5 liter 1 box = 4 bottles 1 drum = 200 liter



\ PORTLAND EPOXY consists of two components epoxy resin bonding system for application to cement mortar or concrete. There are 7 difference types according to the physical requirement of ASTM C 881. Type 1 use as binder in epoxy mortar or concrete. Type 2 for freshly mixed concrete to hardened concrete. Type 3 for bonding skid resistance material. Type 4 for load-bearing application, between harden to harden concrete. Type 5 for load-bearing application, between fresh to harden concrete. Type 6 for pre cast element and post tension. Type 7 for non-stress carrying sealer.

COMPLY WITH: ASTM C 881 AND ANSI A 118.3

USAGE: Mix two components together at the proportion specify of each type then applied.

CONTENT: 2 bottles (1 bottle = 5 liter) 1 box = 4 bottles

\ PORTLAND GROUT is ready mixed compound of both non-metallic and iron grout as aggregate high bonding strength, non-shrink, waterproof and immediate set grout that able this grout to become multi-purpose grout such as machinery and heavy structural grout, as water plug for water leakage, bonding ceramics, stones and cement products, thin layer plastering for maintenance mortar and concrete surfaces, etc. These are the reasons why this grout should be keep ready in the store for installment, maintenance, decorating and engineering works.

COMPLY WITH: ASTM C 1107

USAGE: 1 bag (20 kg) use immediately when mixes with water.

CONTENT: 1 bag = 20 kg.



\ PORTLAND PATCH is a fast setting, non-shrink, high bonding, high strength with corundum aggregate as cement patching, anchoring and grouting material. The product has been formulated without chloride to be placed in consistencies ranging from putty to plastic bonding. The benefits of Portland Patch are rapid set (with in 20 minutes), very high compressive strengths, easy to mix and ready to use, non-corrosive, non-shrink. It can be covered by asphalt or concrete after 20 minutes, excellent bonding strength both green bonding strength and ultimate bonding strength, can be shaped and molded with 5-10 minutes, and resistant to wide variety of chemicals including oil, greases, salt s o l u t i o n s , d i e s e l f u e l .

COMPLY WITH: ASTM C 928

USAGE: 1 bag use immediately when mix with water.

CONTENT: 1 bag = 20 kg.



\ PORTLAND INSULATE is a ready mixed expanded thermal insulating cement when mixed with the suitable proportion of water. It can be troweling, spray, shot or cast to form quick set fire protection and heat insulating coating bonding to the surface of articles such as steel beams to protect the articles against heat and prolong time to be collapsed depend on the thickness of the coat.

COMPLY WITH: ASTM C 196

COVERING CAPACITY: Minimum 26 square meter of 1 cm thick per 100 kg of dry cement.

USAGE: Mix with water cement ratio of 0.55-0.6 and apply to the article.

CONTENT: 1 bag = 20 kg.

\ PORTLAND TILE is ready mixed cement mortar adhesive for bonding, plastering and grouting of ceramics, stones and cement products such as tiles, mosaic, marble, sanitary ware etc. The properties of the adhesive include high water retaining, dry set characteristic, high cohesive strength, high shear strength, ability to installation without soaking, prolong enough time for installation adjustment and workability for bonding, plastering and grouting.

COMPLY WITH: USAS A 118.1

USAGE: 1 bag use immediately when mix with water.

CONTENT: 1 bag = 20 kg.



\ PORTLAND SHOT is dry ready-mixed Shotcrete that can be applied immediately after mixed with water. It divides into 9 grades as the following:

Grade 1 Accelerating admixture; **Grade 6** Organic polymer admixture;
Grade 2 Retarding admixture; **Grade 7** Water reducing admixture;
Grade 3 Pozzolanic admixture; **Grade 8** Air entraining admixture;
Grade 4 Metallic iron admixture; **Grade 9** Quick-setting.
Grade 5 Coloring admixture (red, blue, yellow, Black and white);

COMPLY WITH: ASTM C 1141 TYPE 1

USAGE: Mixed with proper amount of water and applied.

CONTENT: 1 bag = 20 kg.

\ PORTLAND FLOOR is a powder ready-mixed compound of both sizes graded non-metallic and metallic corundum as aggregate and special formulated hardening Cement compounds for seamless extra heavy traffic flooring. It produces an extremely high resistance to wear, durable and high strengths floor that can carry extremely heavy traffic dynamic impact loads, fuel oil and grease resistance and abrasive resistance without being wear or crushed for all buildings and industrials as well as decorative applications for long lasting seamless floor. Portland Floor is available in cement color and variety colors.

COMPLY WITH: ASTM C 779

COVERAGE: 1 bag (20 kg.) covers 20 square meters

USAGE: 1 bag use immediately when mix with water.

CONTENT: 1 bag = 20 kg.



\ PORTLAND RETAIN is a water retaining polymers powder for use as admixture in cement mortar and concrete. It contains monomers that will co-polymerize when mixed with water to become gel of hydro-scooped if grafted co-polymers within the tiny pores of cement mortar and concrete mass. It is able to prevent the hydration loss due to vapor evaporation and protect the mortar or concrete from strength loss due to not enough water for the reaction with cement. Besides the water retaining property, it also provides more homogeneous, plasticity, workability, pump-ability, bonding-ability and anti-breeding properties. It is suitable for both ready mix and inside mix concrete.

COMPLY WITH: ASTM C 1384 (Bond and Workability Enhancer)

USAGE: Mix with Cement 0.02%, aggregates then mix with mixing water.

CONTENT: 1 bag = 20 kg.



\ PORTLAND FIBRE is fiber-reinforced cement enable to mix with aggregates and mixing water to become fiber-reinforced concrete and shotcrete for increase tensile strength. The classification contain three types, type one for steel fiber, type 2 for glass fiber, and type 3 for synthetic fiber. The proper specifications for the proper working requirements should be specific before manufacture otherwise standard high tensile strength glass fiber reinforced cement and shotcrete mixed with general needed working requirement admixtures is supplied which is suitable for thin-shell.

COMPLY WITH: ASTM C 1116

USAGE: Mixed with proper aggregates and mixing water then applied.

CONTENT: 1 bag = 20 kg.

\ PORTLAND MEMBRANE is waterproof cement for mixed with mixing water to become polymeric film forming waterproof membrane being able to be used as the exterior surface or as bonding adhesive for mortar, concrete, brick, tile, marble, ceramics etc. The film-forming exterior surface is protective coating for chemical resistance to the most of alkalis, mild acids and oils. It also has freeze thaw stability, high tensile bonding strength, durability and clean-ability. It is suitable to apply with toweling, brushing, roller, or spray application. PORTLAND MEMBRANE provides both white and gray cement colors and can be mix into other colors with PORTLAND COLOR. For coating, the thickness must be not less than 1 cm.

COMPLY WITH: ASTM C 932, ASTM C 1438 AND ASTM D 5295

USAGE: Mix with mixing water then applied.

CONTENT: 1 bag = 20 kg.



\ PORTLAND SILICA is the pozzolanic silica fume to be use as a mineral admixture for high strength cement mortar and concrete. It can increased the strength to ultra high strength concrete beyond the ordinary ability of regular mix design and admixture can be done by the effect of highly reactive pozzolanic reaction of ultra fine micro silica. The particle size of average diameter of 0.1 μm , the silica content 86-98 % and the surface area of 20,000-23,000 sq.m./kg compare with 300-350 sq.m./kg for type 1 cement.

COMPLY WITH: ASTM C 1240

DOSAGE: 10-25 % of cement

USAGE: Mix with cement, aggregates and mixing water.

CONTENT: 1 bag = 20 kg.

\ PORTLAND MIX is Tailor-made cement mortar or concrete admixture or mixed cement depending on the working requirements of the user. If proper standard products are not suitable or it need vary the product according to the changing working condition such as oil well cement, the deeper the higher temperature and need longer setting time. If mixed into solid powder, packing will be in 20 kg. Bag, if mixed into liquid, packing will be in 200-liter drum.

COMPLY WITH: STANDARDS SPECIFIED BY THE USERS

DOSAGE: Depend on the product.

USAGE: Depend on the product.



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