

## **OUR SPECIAL PRODUCTS**

- . Dost Beton (Self-Compacting and Self-Leveling Concrete)
- . Drabeton (Concrete with Dramix and Fiber)
- . Art Beton (Decoratively Colored and Imprinted Concrete)
- . Sivamiks (Ready-to-use Wet Plaster)
- . Yol Betonu (High Resistance Strength Concrete with Reinforced Tension Strength)
- . Aqua Beton (Under Water Concrete)
- . İzo Şap (Alum Concrete for Insulation and Sealant)

### **Dost Beton (Self-Compacting and Self-Leveling Concrete)**

Dost Beton, is Çimsa's self-leveling concrete product. It self-levels anywhere using its own gravity, requiring no vibration. It is free of condensation and decomposition problems and is also self-compacting. Dost beton is a special, highly fluid concrete that has long durability due to its unique design. Dost Beton (SCSLC); requires no vibration because of its self-leveling property and provides a quiet working environment. The labor and equipment costs decrease when compared to normal concrete casting. No decomposition and bleeding can be observed. A flat and smooth surface appears when the formwork is removed. No leveling problem occurs even though the concrete is very fluid and the fitting sections are close and narrow. It eliminates the risk of adding water to the concrete in the construction area. Although the concrete in a normal structure dissolves in Class C 20, Dost Beton has strength of class C 40 and so it provides high savings from the fittings while the statistical calculations of the building projects are prepared according to this strength class. Very smooth and uniformed concrete production is obtained especially in complex structures with curves. It increases the durability of the concrete. Its resistance to water, chemical effects and carbonation is high. It provides high savings in terms of time and money. Dost Beton (SCSLC) has a thinner gradation than the usual concrete. It contains more than 50% thin aggregate in one cubic meter of concrete. Its maximum grain diameter is 16 mm. It has a class C 40 or above strength, that is 50 – 55 Mpa, because it contains an average 500 kg/m<sup>3</sup> of binding material (cement and mineral additives) and its water/cement ratio (W/C) is below 0.35.

### **Dra Beton (Concrete with Dramix and Fiber)**

Drabeton is a Çimsa produced concrete with steel reinforcement. Dramix is manufactured in Çimsa Ready-Mixed Concrete Plants using steel rods. DraBeton is especially used as field concrete, floor-coating concrete, retaining or sustaining concrete, shotcrete etc. Due to containing Dramix, it has high resistance and strength against tensile forces without any additional reinforcement, and in particular it has high alkali resistance and is effective against shrinkage cracks thanks to containing dralif.

Dramiks is a product with steel rod reinforcement and it has high tensile strength. The clusters, glued with adhesives, show a homogeneous distribution in the concrete. The hook-ends make the anchorage with the concrete perfect. Care is taken that the steel rods are distributed uniformly and safely in each direction of the concrete, including the edges and the surface. Thus, a three-dimensional reinforcement system is achieved through Drabeton. Consequently, this concrete resists complex loading and also crack risks are reduced significantly. In mesh reinforcement applications, correctly positioning the reinforcement is practically complicated. In Drabeton, steel wire reinforcement is uniform in all directions.

Construction time and labor costs are reduced by means of Drabeton, since there is no need for any additional reinforcement. Drabeton furthermore brings in labor cutbacks in the design, drawing, measurement, cutting, welding, warehousing, placing and inspection phases, when compared with traditional reinforcement. Floor thicknesses are reduced by use of Drabeton. Accordingly, total costs come down. Drabeton increases flexibility. The energy absorption capacity of the concrete floor increases; consequently the lifetime of the floor is prolonged. Crack control is facilitated, since the steel reinforcement is dispersed (uniformly) throughout the concrete cross section. Cracks attributable to temperature variations and uneven hardening processes are avoided. Steel rods assume the role of a bridge over cracks inclined to grow and thus prevent them from growing. Consequently, the concrete's durability improves. It exhibits great resistance to dynamic loads and shock effects. It is practical to achieve concrete floors with wider beam openings by means of Drabeton. Places where Drabeton may be used can be listed as; concrete floors, screed and protection concretes, concrete open areas, factory floors, parking lots, concrete highways, gas stations, stock areas, seamless concrete floors, cold storage floors, floor screeds, concrete toppings, coverings at ports and shipyards.

### **Art Beton (Decoratively Colored and Imprinted Concrete)**

Art Beton is an easy-to-use base coating material for both indoors and outdoors, and is well known as textured and decoratively colored concrete, or simply imprinted concrete. It is a printed concrete technology product that gives the impression of individual stones laid as wood, brick, natural stones and mosaic. The printed concrete technology joins beautiful appearance with easy application. The printed concrete sector has been in use particularly in the US for a long time, and has been increasing its market share each year by 25%. The sector has strong growth potential in Turkey as well.

Art Beton branded printed concrete can be applied in assorted colors and patterns and looks like natural stone such as granite. Art Beton does not cave in and it provides a non-skid and stain-proof surface. Art Beton's colors do not fade away. Art Beton bears the "new technology that respects tradition and culture" feature, thanks to its "old and used" appearance created by the application of antique effect chemicals on its surface.

Some places where Art Beton may be used are; garden arrangements, parks, poolsides, urban recreation areas, environmental landscaping, lanes, marinas and piers, shopping centers, parking lots and gas stations. It is easily applicable. The concrete is poured to the application area in the appropriate consistency prepared with Çimsa quality having low water/cement ratio and containing super fluidization chemical additives. The concrete, which is poured onto the prepared floor, is jigged and leveled with specially designed equipment. Color surface hardening powder is sprinkled onto this concrete and it is allowed to be absorbed fairly. And then the concrete is left still for a while. After that, the formwork release agent is sprinkled onto this concrete. This agent does not adhere to the concrete or the formwork. The formworks in the desired patterns are placed onto the concrete and pressure is applied. After 24 hours, the formwork release agent is cleaned by washing the concrete and the surface is left to dry after being polished.

### **Sıvamiks (Ready-to-use Wet Plaster)**

Sıvamiks was created using Çimsa technology to replace the so-called black plaster, which is hand-blended and therefore lacks consistent quality. This cement has strong adhesive properties and offers sound water resistance and heat insulation due to the absence of lime or

similar materials in its formula. It does not cause shrinkage cracks. Its air content percentage is high and its density is lower than classical plaster. It can easily be sprayed using plaster machines. It has high compressive and bending strength. It provides high savings in terms of labor time and costs. It can be painted over relatively quickly compared to plaster since it has only a 72-hour settling period, and so it enables the work to be completed quickly. All these factors ensure that Sivamiks is much more economical than manually prepared plaster.

### **Yol Betonu (High Resistance Strength Concrete with Reinforced Tension Strength)**

This concrete is used as a surface material for roads, using cement as its binder. Its structural life exceeds any material which uses an asphalt-based binder. Its tensile strength is 8 – 10 times higher than normal Ready-Mixed Concrete. It has a very long structural life. It is less prone to seasonal damage than asphalt roads. Yol Betonu has an ultimate bearing capacity and it can be applied in all seasons, under any conditions. It enables shorter vehicle stopping distance and provides better night vision without harming the natural or urban environment. It can be used in areas which are exposed to cargo and vehicle traffic, such as every type of road construction, with or without reinforcement, gas station field concretes, airports and special runways, as well as passive fields which are exposed to excessive cargo load and vibration, such as industrial fields and harbours.

### **Aqua Beton (Underwater Concrete)**

Aqua Beton can flow easily underwater without washing away or decomposition. It is self-leveling and self-compacting, and requires no vibrators or any other equipment. It has very low permeability, high viscosity, reliable strength, and is of a non-deteriorating quality. Early and final compressive strength, tensile strength, impermeability conditions, self leveling and self compacting properties, leveling techniques and wear resistance can be expressed among its advantages.

### **İzo Şap (Alum Concrete for Insulation and Filling)**

It is a pumpable filling material with high air content and low density. It can comfortably be applied as alum to every kind of flooring which provides sound and heat insulation. It contains cement, thin aggregate, mineral and chemical additives. It can easily be pumped using alum and concrete pumps. It can be applied over or under parquet strip and water layers as leveling or protective concrete where filling material is required. Its own weight loaded onto the structure is lighter than classical concretes.