

BIO-POR CONCRETE

The generally known method of producing BIO-POR LIGHTWEIGHT CONCRETE by entraining foam has been improved by our company in recent years to an extent whereby it is now possible to precisely achieve any desired density from 12-112 lb/ft³. The coordination of a stable foam, free of chloride, with skillfully designed equipment, simultaneously guarantee optimum strength, favorable thermal conductivity, low water absorption capabilities and minimum shrinkage.

The Bio-Por manufacturing procedure is described in the technical information book. Test results and certificates reveal details about the behavior of Bio-Por Concrete upon tests prescribed by the building research authorities. Special concrete mixing and a Bio-Por Concrete-mixer pump have been developed by us over the years. This Bio-Por Concrete equipment has been brought to a stage where it meets the strict requirements for industrial machinery.

By using the Bio-Por Concrete foam generator only, the Bio-Por Concrete system can basically be integrated into any existing concrete plant using orthodox mixers. When permanently producing foam-concrete, we recommend our mobile Bio-Por Concrete compact unit with single or double mixer.

The specially designed Bio-Por Concrete mixing equipment produces an instant and homogeneous entrainment of the Bio-Por foam, evenly distributing the air voids. The structure of the Bio-Por foaming agent produces closed air voids throughout the concrete.

Mounted beneath the mixing drum(s) it conveys the Bio-Por Concrete more than 65 feet vertically or 164 feet horizontally without adversely affecting the void content.

The foam generator allows the continuous production of foam. One part of Bio-Por foaming agent is diluted in 40 parts of water and sucked by the generator.

According to the required density, the amount of Bio-Por foam to be injected into the mixing drum is governed by a time relay. An extension tray has been fitted, marking the various quantities of aggregates required in relationship to the desired density, without having to weigh the aggregates. Upon request automatic dosage can be adapted. Some 176-530 ft³ Bio-Por Concrete per hour can be produced by the double mixer and conveyed by the pump into molds.

The Bio-Por Concrete offers the following keypoints of application:

- Filling of Isomax Polystyrol wall elements
- Insulation concrete, without reinforcement, density 12-31 lb/ft³, cement only
- Roof insulation in conjunction with humidity insulation
- Concrete block production, density 37-50 lb/ft³
- Reinforced elements and prefabricated panels, density 62 lb/ft³

**Applicability of
Bio-Por Concrete:**

DENSITY lb/ft ³	12	25/38	50/62	75	87/100	112
Reinforced precast large panels:						
Wall elements	*	*	◇	●	●	●
Floor elements	*	*	*	◇	●	●
Non bearing wall elements	*	*	●	◇	◇	*
Thermal insulation on flat roof	●	●	●	◇	◇	*
Concrete blocks manufacture	◇	◇	●	◇	◇	*
Spray concrete (for domes)	*	*	◇	●	●	
General insulation	●	●	●	*	*	*

- Very appropriate
- ◇ Appropriate under conditions
- * Not appropriate