



WESTBRICKS® with Pozzotive® Supplementary Cementitious Material

Technical Data Sheet



Manufacturer

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Product Description

WESTBRICKS® with Pozzotive® is a high performance supplementary cementitious material (SCM), also known as a “pozzolan.” It is manufactured from 100% recycled postconsumer bottle glass. Using patented technology, all organics are removed, and the glass is reduced to a finely divided white powder. The glass that feeds this process is recovered from any type of postconsumer source including bottle redemption and curbside pickup.

Pozzotive® is classified chemically as an amorphous silicate. For application as an SCM, Pozzotive® 12, which has a median particle size of 12 micron, is used. Pozzotive®’s attributes include (1) consistent chemical composition and color (2) lack of contaminants that are harmful to concrete quality, such as carbon (3) nontoxic; i.e., contains no harmful crystalline silica or heavy metals and (4) increases concrete strength, durability and resistance to destructive chemicals such as road salt.

Pozzotive® can be used to replace up to 40 percent of the white or grey Portland cement in a concrete design mix, and as an additive to existing concrete and mortar mixes for increased durability. Any product made, that uses Portland cement as a binder, can integrate postconsumer content into its design matrix. This integration can significantly reduce the amount of cement required. Some products that Pozzotive® can benefit include: concrete block, pre-stressed concrete plank, precast concrete, ready mix, pavers, cast stone, countertops, etc.

Chemical Composition

Silica (SiO ₂)	70–73%
Alumina (Al ₂ O ₃)	1–6%
Calcium Oxide (CaO)	10–12%
Sodium Oxide (Na ₂ O)	11–13%
Magnesium Oxide (MgO)	1%
Potassium Oxide (K ₂ O)	<1%
Iron Oxide (Fe ₂ O ₃)	<1%
All other oxides combined	<1%

Physical Properties

% Passing # 325 Mesh	>99%
Specific Gravity	2.46 g/cc
Median Particle Size	12 micron
Strength Activity Index, 28d, % of Control	>100%
Water Requirement, % of Control	97%
Soundness	0.05%
SiO ₂ + Al ₂ O ₃ + Fe ₂ O ₃	75%
Sulphur Trioxide	0.20%
Moisture Content	0.1%
Loss on Ignition	<1%
Brightness	85–94%
Specific Surface Area	>5,000 cm ² /g