

Recycling Waste Coal Ash Promises More Sustainable Concrete Materials

The construction industry commonly uses lightweight aggregate — characterized by a bulk density lower than normal aggregates because of its porous structure — for applications such as lightweight concrete, insulating

Traditional lightweight aggregate is manufactured by mining natural mate

includes crushing the mined material, screening it, and feeding it to a rotary

into a partial liquid phase, where certain chemical compounds release gases that create porous structures in

Slate and shale quarries that have a suitable chemical composition for lightweight aggregate production have been found through years of geological

are often located far from areas with high lightweight aggregate demand

tance between the lightweight aggregate manufacturers and their customers increases transportation costs, often