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(54) **SYNTHETIC AGGREGATE FOR USE IN CONCRETE**

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(51) **Int. Cl.**
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(57) **ABSTRACT**

(52) **U.S. Cl.**
USPC **524/8; 524/442**

The synthetic aggregate for use in concrete is a composite material of recycled plastic having a filler encapsulated in the plastic. The synthetic aggregate includes between 30% and 50% recycled shredded plastic, the balance being filler. The plastic may be linear low-density polyethylene (LLDPE). The filler can include red sand, fly ash and quarry fines. The synthetic aggregate is best used to make concrete with a water-to-cement ratio of at least 0.5. A method of making the synthetic aggregate includes the steps of mixing plastic with filler to form a homogenized mixture, compressing the homogenized mixture in a mold, melting the plastic in the homogenized mixture to form a composite sheet or slab, and shredding the composite sheet or slab to form either coarse or fine aggregates for use in making concrete.

(58) **Field of Classification Search**
USPC 524/8, 442
See application file for complete search history.

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6 Claims, 7 Drawing Sheets

