CLAIMS

1. An encapsulated resin masterbatch composition provided as closed end pellets comprising:

a core comprising at least one stabilizer additive, and

an outer layer comprising a thermoplastic polymer, said outer layer further characterized as having a thickness from 0.001 mm to 1 cm,

wherein the core is encapsulated by the outer layer, and the pellets are sealed at each end so as to be leak-free.

2. The resin masterbatch composition as defined in claim 1, wherein the stabilizer additive comprises at least one of a hindered amine light stabilizers (HALS), an organic phosphite or phosphonite, a hindered phenol, a chromane, an ultraviolet light (UV) absorber, a hindered benzoate, a hydroxylamine, a tertiary amine oxide, and a free radical polymerization inhibitor.

3. The resin masterbatch composition as defined in claim 1, wherein the stabilizer additive comprises esters of 2,2,6,6-tetramethyl-4-piperidinol with $C_{12-21}$-saturated and $C_{18}$-unsaturated fatty acids.

4. The resin masterbatch composition as defined in claim 1, wherein the stabilizer additive comprises at least one of phenothiazine, a phenothiazine derivative, hydroquinone, hydroquinone monomethyl ether (MEHQ), and *tert*-butyl catechol (TBC).

5. The resin masterbatch composition as defined in any of claims 1-4, wherein the thermoplastic polymer comprises at least one of: polyolefins, polyesters, polyethers, polyketones, polyamides, natural and synthetic rubbers, polyurethanes, polystyrenes, high-impact polystyrenes, polyacrylates, polymethacrylates, polyacetals, polyacrylonitriles, polybutadienes, acrylonitrile-butadiene-styrene terpolymers, styrene-acrylonitrile copolymers, acrylate-styrene-acrylonitrile terpolymers, cellulosic acetate butyrate, cellulosic polymers, polyimides, polyamideimides, polyetherimides, polyphenylene sulfides, polyphenylene oxides, polysulfones, polyethersulfones, polyvinyl chlorides, polycarbonates, and ethylene-vinyl acetate copolymers.

6. The resin masterbatch composition as defined in claim 5, the thermoplastic polymer comprises at least one of polyethylene, polypropylene, a polypropylene copolymer, polystyrene, and a styrene-acrylonitrile copolymer.

7. The resin masterbatch composition as defined in any of claims 1-6, wherein the core further comprises a thermoplastic polymer diluent that is the same or different than the thermoplastic polymer in the outer layer.

8. The resin masterbatch composition as defined in any of claims 1-7, wherein the outer layer comprises at least one stabilizer additive.

9. A stabilized composition prepared from an organic material to be stabilized, and a resin masterbatch composition as defined in any of claims 1-8.

10. The stabilized composition as defined in claim 9, wherein the organic material comprises a polymer, a coating, a molded article, a textile, a fiber, a film, an ethylenically unsaturated monomer, a wax, an organic compound, a photographic film, paper, a cosmetic, an organic dye, or an ink.

11. The use of the resin masterbatch composition as defined in any of claims 1-8 to provide a stabilized composition.

12. A process for producing the encapsulated resin masterbatch composition as defined in any of claims 1-8, the process comprising:

co-extruding in tubular form a core material encapsulated by an outer layer, wherein the core material comprises at least one stabilizer additive, and the outer layer comprises a polymer, to form a filled tube;

passing the filled tube into a sealing device that cuts the filled tube into multiple discrete segments and simultaneously seals each end of each discrete segment, thereby forming closed end pellets; and

cooling the closed end pellets.

13. The process as defined in claim 12, wherein at least two filled tubes are simultaneously extruded, cut, sealed, and cooled with the same device, to form at least two process streams of closed end pellets.

14. A process for producing an article, the process comprising melt-mixing the encapsulated resin masterbatch composition of any of claims 1-8 with a polymer to form a stabilized composition; and molding the stabilized composition to form the molded article.