TABLE 3-continued

SUMMARY OF CURING STUDIES

| Sample no. | Acrylic prepolymer sample no. | Benzoyl peroxide wt % | Other additives, wt % | Curing conditions Temp, ° C. | Curing conditions Time, h | Initial Shore A hardness | Comments |
|---|---|---|---|---|---|---|---|
| C964-135-6 | C964-128-1[e] | 0.05 | none | 80[d] | 17 | Liquid | No cure. |
| C964-135-7 | C964-128-1[e] | 0.10 | none | 80[d] | 17 | Liquid | No cure. |
| C964-135-8 | C964-128-1[e] | 0.25 | none | 80[d] | 17 | Liquid | No cure. |
| C964-135-9 | C964-128-1[e] | 0.50 | none | 80[d] | 17 | Liquid | No cure. |
| C964-135-10 | C964-128-1[e] | 1.00 | none | 80[d] | 17 | Liquid | No cure. |
| C964-135-11 | C964-124-1[e] | 0.05 | none | 80[d] | 17 | ND | No cure. |
| C964-135-12 | C964-124-1[e] | 0.10 | none | 80[d] | 17 | ND | No cure. |
| C964-135-13 | C964-124-1[e] | 0.25 | none | 80[d] | 17 | ND | No cure. |
| C964-135-14 | C964-124-1[e] | 0.50 | none | 80[d] | 17 | ND | No cure. |
| C964-135-15 | C964-124-1[e] | 1.00 | none | 80[d] | 17 | ND | No cure. |
| C964-141-1 | C964-137-1 | 0.10 | none | 80 | 1 | 66 | Flexible elastomer. |
| C964-141-2 | C964-137-1 | 0.25 | none | 80 | 1 | 71 | Flexible elastomer. |
| C964-141-3 | C964-137-1 | 0.50 | none | 80 | 1 | 72 | Flexible elastomer. |
| C964-141-4 | C964-137-1 | 1.00 | none | 80 | 1 | 72 | Flexible elastomer. |
| C964-141-5 | C964-128-1 | 0.10 | none | 80 | 1 | Liquid | No cure. |
| C964-141-6 | C964-128-1 | 0.25 | none | 80 | 1 | Liquid | No cure. |
| C964-141-7 | C964-128-1 | 0.50 | none | 80 | 1 | Liquid | No cure. |
| C964-141-8 | C964-128-1 | 1.00 | none | 80 | 1 | Liquid | No cure. |
| C964-143-1 | C964-137-1 | 0.25 | Cab-o-Sil PTG, 5.0 | 80 | 1 | 74 | No cure. |
| C964-143-2 | C964-137-1 | 0.25 | Cab-o-Sil PTG, 2.5 | 80 | 1 | 73 | No cure. |
| C964-143-3 | C964-137-1 | 0.25 | L-PLA (IV + 0.8), 5.0 | 80 | 1 | 75 | No cure. |
| C964-143-4 | C964-137-1 | 0.25 | L-PLA (IV + 0.8), 2.5 | 80 | 1 | 78 | No cure. |
| C964-148-1 | C964-144-1 | 0.05 | none | 80 | 17 | Liquid | No cure. |
| C964-148-2 | C964-144-1 | 0.10 | none | 80 | 17 | Liquid | No cure. |
| C964-148-3 | C964-144-1 | 0.25 | none | 80 | 2 | 66 | C964-148-4 and C964-148-6 were about the same in toughness, and both were better than C964-148-3 and C964-148-5. |
| C964-148-4 | C964-144-1 | 0.50 | none | 80 | 2 | 68 | C964-148-4 and C964-148-6 were about the same in toughness, and both were better than C964-148-3 and C964-148-5. |
| C964-148-5 | C964-144-1 | 1.00 | none | 80 | 2 | 67 | C964-148-4 and C964-148-6 were about the same in toughness, and both were better than C964-148-3 and C964-148-5. |
| C964-148-6 | C964-144-1 | 2.00 | none | 80 | 2 | 69 | C964-148-4 and C964-148-6 were about the same in toughness, and both were better than C964-148-3 and C-964-148-5. |
| C964-149-1 | C964-144-1 | 0.15 | none | 80 | 2 | 64 | |
| C964-149-2 | C964-144-1 | 0.20 | none | 80 | 2 | 64 | |
| C964-149-3 | C964-144-1 | 0.25 | none | 80 | 2 | 66 | |
| C964-149-4 | C964-144-1 | 0.15 | Cab-o-Sil N70-TS 5.0 | 80 | 2 | ND | Samples too porous, did not have any flat area for hardness measurement. |
| C964-149-5 | C964-144-1 | 0.20 | Cab-o-Sil N70-TS 5.0 | 80 | 2 | ND | Samples too porous, did not have any flat area for hardness measurement. |
| C964-149-6 | C964-144-l | 0.25 | Cab-o-Sil N70-TS 5.0 | 80 | 2 | ND | Samples too porous, did not have any flat area for hardness measurement. |
| C964-150-1 | C964-146-1 | 0.05 | none | 80 | 17 | ND | Only partially cured. |
| C964-150-2 | C964-146-1 | 0.10 | none | 80 | 2 | 72 | Elastic, flexible, moderately strong. |
| C964-150-3 | C964-146-1 | 0.25 | none | 80 | 2 | 57 | Elastic, flexible, moderately strong. |
| C964-150-4 | C964-146-1 | 0.50 | none | 80 | 2 | 56 | Elastic, flexible, moderately strong. |
| C964-150-5 | C964-146-1 | 1.00 | none | 80 | 2 | 50 | Elastic, flexible, moderately strong. |
| C964-150-6 | C964-146-1 | 2.00 | none | 80 | 2 | 51 | Elastic, flexible, moderately strong. |

[a]Result not determined.
[b]TMPTETA = trimethylolpropane triethoxy triacrylate.
[c]AIBN = azobisisobutyronitrile.
[d]Cured in air at atmospheric pressure.
[e]Diol prepolymer used.

What is claimed is:

1. A method of adhering an implant to a patient's tissue, comprising:

(a) applying a polymer system to the implant, the tissue, or both, wherein the polymer system comprises an effective amount of a water-insoluble biodegradable thermoplastic polymer and a biocompatible, water-soluble organic solvent which is capable of dissolving the thermoplastic polymer and capable of dissipating or diffusing into a body fluid; and

(b) implanting the device in a human or animal wherein the polymer system forms a solid biodegradable matrix which adheres the implant to the tissue, wherein the proportion of polymer in solvent and the polymer molecular weight are effective to provide said dissipating or diffusing function.