A thermoplastic polyurethane composition includes a thermoplastic polyurethane (TPU) and a polyoxyethylene. The thermoplastic polyurethane composition comprises 50 to 95 parts by weight of the TPU and 5 to 50 parts by weight of the polyoxyethylene, per 100 parts by weight of the thermoplastic polyurethane composition. The thermoplastic polyurethane composition has an Izod notched impact of greater than 0.5 ft-lb/in at -40°C as determined by ASTM D256 10, Method A, and an elastic modulus of greater than 700 psi at 130°C as determined by ASTM D412. A fluid transfer tube is formed from the thermoplastic polyurethane composition.
What is claimed is:

1. A thermoplastic polyurethane composition comprising:

   50 to 95 parts by weight of a thermoplastic polyurethane, per 100 parts by weight of the thermoplastic polyurethane composition;

   5 to 50 parts by weight of a polyoxymethylene, per 100 parts by weight of the thermoplastic polyurethane composition; and

   an amrydride-functional compatibilizer;

   wherein said thermoplastic polyurethane composition has an Izod notched impact of greater than 0.5 ft-lb/in at -40°C as determined by ASTM D25610, Method A, and an elastic modulus of greater than 700 psi at 130°C as determined by ASTM D412.

2. A thermoplastic polyurethane composition as set forth in claim 1 wherein the anhydride-functional compatibilizer is a maleic anhydride-functional polyethylene or polypropylene.

3. A thermoplastic polyurethane composition as set forth in claim 1 or 2 wherein said thermoplastic polyurethane is selected from the group of polyether-based thermoplastic polyurethanes, polyester-based thermoplastic polyurethanes, and combinations thereof.

4. A thermoplastic polyurethane composition as set forth in any preceding claim wherein said thermoplastic polyurethane is a polyether-based thermoplastic polyurethane.

5. A thermoplastic polyurethane composition as set forth in any preceding claim wherein said thermoplastic polyurethane has a weight average molecular weight of greater than 50,000 g/mol.

6. A thermoplastic polyurethane composition as set forth in any preceding claim wherein said thermoplastic polyurethane has a softening point of greater than 50°C as determined by ASTM D 525-09.
7. A thermoplastic polyurethane composition as set forth in any preceding claim wherein said thermoplastic polyurethane has a tensile strength of from 2,000 to 10,000 psi at 23°C as determined by ASTM D412.

8. A thermoplastic polyurethane composition as set forth in any preceding claim wherein said polyoxymethylene has a weight average molecular weight of greater than 50,000 g/mol.

9. A thermoplastic polyurethane composition as set forth in any preceding claim wherein said polyoxymethylene has a melting point of greater than 160°C.

10. A thermoplastic polyurethane composition as set forth in any preceding claim wherein said polyoxymethylene has a tensile strength of from 8,000 to 11,000 psi at 23°C as determined by ASTM D638.

11. A thermoplastic polyurethane composition as set forth in any preceding claim further comprising a cross-linking agent comprising a thermoplastic polyurethane carrier and an isocyanate component.

12. A thermoplastic polyurethane composition as set forth in claim 11 further comprising 1 to 15 parts by weight of said cross-linking agent per 100 parts by weight of said thermoplastic polyurethane composition.

13. A thermoplastic polyurethane composition as set forth in any preceding claim having a 1 in. Izod notched irapaci of greater than 0.9 ft-lb/in at ~40°C as determined by ASTM D256 10 (Method A).

14. A thermoplastic polyurethane composition as set forth in any preceding claim having a tear strength of greater than 1,200 p[ at 23°C as determined by ASTM D624, Die C.

15. A thermoplastic polyurethane composition as set forth in any preceding claim having a tensile strength of greater than 5000 psi at 23°C as determined by ASTM D412.
16. A thermoplastic polyurethane composition as set forth in any preceding claim having a tensile strength of greater than 750 psi at 130°C as determined by ASTM D412.

17. A thermoplastic polyurethane composition as set forth in any preceding claim having a flexural modulus of greater than 40,000 psi at 23°C and greater than 2,000 psi at 130°C as determined by ASTM D790.

18. A thermoplastic polyurethane composition as set forth in any preceding claim having a Shore D Hardness of from 50 to 100 pts as determined by ASTM D2240.

19. A thermoplastic polyurethane composition as set forth in any preceding claim having a specific gravity of from 1.11 to 1.25 g/cm³.

20. A fluid transfer tube formed from the thermoplastic polyurethane composition of any preceding claim.

21. A method of forming the fluid transfer tube set forth in claim 20, said method comprising the steps of:

   combining the thermoplastic polyurethane and the polyoxymethylene to form the thermoplastic polyurethane composition; and

extruding the thermoplastic polyurethane composition to form the fluid transfer tube.
With respect to at least independent claim I, the Applicants respectfully assert that each of D1 through D3, either independently or in combination, fail to disclose, teach, or even suggest the features as now claimed. Specifically, D1 through D3 do not disclose the claimed thermoplastic polyurethane composition comprising 50 to 95 parts by weight of a thermoplastic polyurethane, per 100 parts by weight of the thermoplastic polyurethane composition, and 5 to 50 parts by weight of a polyoxymethylene, per 100 parts by weight of the thermoplastic polyurethane composition, in combination with an anhydride-functional compatibilizer. For these reasons, the Applicants submit that independent claim I, and all claims which depend therefrom, are novel and involve an inventive step.