WHAT IS CLAIMED IS:

1. An apparatus for forming a silicone article, comprising:

a pumping system to deliver a silicone formulation to a die, the silicone formulation having a viscosity of less than about 2,000,000 centipoise;

the die having a distal end, a proximal end, and a channel there between, wherein the silicone formulation flows through the channel of the die, the die having an operating temperature of about 25°C to about 60°C; and

a source of radiation energy, wherein the radiation energy substantially cures the silicone formulation as the silicone formulation flows out the channel of the die to form the silicone article.

2. The apparatus according to claim 1, wherein at least a first portion of the die, a portion of the pumping system, or combination thereof is substantially transparent to a radiation source.

3. The apparatus according to claims 1 or 2, wherein the radiation source is ultraviolet light.

4. A method of forming a silicone article, comprising:

providing a silicone formulation within a pumping system, wherein the silicone formulation has a viscosity of less than about 2,000,000 centipoise;

providing a die having a distal end, a proximal end, and a channel there between, the die having an operating temperature of about 25°C to about 60°C;

delivering the silicone formulation from the pumping system and through the channel of the die; and

irradiating the silicone formulation with a radiation source to substantially cure the silicone formulation as the silicone formulation flows out the channel of the die to form the silicone article.

5. The method according to claim 4, wherein delivering the silicone formulation is at an operating temperature of about 25°C to about 60°C.

6. The method according to claim 4, wherein the silicone formulation is formed into a tube.

7. The method according to claim 6, further comprising forming the silicone formulation tube over a polymer.

8. The method according to claim 7, wherein the silicone formulation and the polymer are co-extruded.

9. An extruded silicone tube comprising:

a distal end, a proximal end, and a lumen for fluid flow there through having a continuous length from the distal end to the proximal end of at least about 0.5 meters;

wherein the silicone tube comprises a cured silicone formulation having a viscosity of less than about 1,000,000 centipoise prior to cure.

10. The silicone tube according to claim 9, having a standard deviation of an inner diameter of the silicone tube no greater than about 1.1% of an average inner diameter of the silicone tube over an entire length of the silicone tube.

11. The silicone tube according to claims 9 or 10, having a standard deviation of a wall thickness of the silicone tube no greater than about 3.6% of an average wall thickness of the silicone tube over an entire length of the tube.

12. The silicone tube according to claims 9 or 10, wherein the tube is free of a parting line, a knit line, flash, or combination thereof.

13. The silicone tube according to claims 9 or 10, wherein the tube is radiation cured.

14. The silicone tube according to claims 9 or 10, having a crosslink density of about 0.002 mmole/gram to about 0.2 mmole/gram.

15. A silicone extrudate comprising:

a configuration of a film, a block, a circular tube, a rectangular tube, or a shaped profile;

wherein the silicone extrudate comprises a radiation cured silicone formulation catalyzed with an organometallic complex compound, the silicone formulation having a viscosity of less than about 1,000,000 centipoise prior to cure.

WHAT IS CLAIMED IS:

1. An apparatus for forming a silicone article, comprising:

a pumping system to deliver a silicone formulation to a die, the silicone formulation having a viscosity of less than about 1,000,000 centipoise prior to cure, measured at a shear rate of 10 1/s (sec^{-1});

the die having a distal end, a proximal end, and a channel there between, wherein the silicone formulation flows through the channel of the die, the die having an operating temperature of about 25°C to about 60°C; and

a source of radiation energy, wherein the radiation energy substantially cures the silicone formulation as the silicone formulation flows out the channel of the die to form the silicone article, wherein the silicone article has a loss modulus of about 0.01 MPa to about 1.0 MPa, measured at 25°C at 1 hertz by dynamic mechanical analysis.

2. The apparatus according to claim 1, wherein at least a first portion of the die, a portion of the pumping system, or combination thereof is substantially transparent to a radiation source.

3. The apparatus according to claims 1 or 2, wherein the radiation source is ultraviolet light.

4. A method of forming a silicone article, comprising:

providing a silicone formulation within a pumping system, wherein the silicone formulation has a viscosity of less than about 1,000,000 centipoise prior to cure, measured at a shear rate of 10 1/s (sec^{-1});

providing a die having a distal end, a proximal end, and a channel there between, the die having an operating temperature of about 25°C to about 60°C;

delivering the silicone formulation from the pumping system and through the channel of the die; and

irradiating the silicone formulation with a radiation source to substantially cure the silicone formulation as the silicone formulation flows out the channel of the die to form the silicone article, wherein the silicone article has a loss modulus of about 0.01 MPa to about 1.0 MPa, measured at 25°C at 1 hertz by dynamic mechanical analysis.

5. The method according to claim 4, wherein delivering the silicone formulation is at an operating temperature of about 25°C to about 60°C.

6. The method according to claim 4, wherein the silicone formulation is formed into a tube.

7. The method according to claim 6, further comprising forming the silicone formulation tube over a polymer.

8. The method according to claim 7, wherein the silicone formulation and the polymer are co-extruded.

9. An extruded silicone tube comprising:

a distal end, a proximal end, and a lumen for fluid flow there through having a continuous length from the distal end to the proximal end of at least about 0.5 meters;

wherein the silicone tube comprises a cured silicone formulation having a viscosity of less than about 1,000,000 centipoise prior to cure, measured at a shear rate of 10 1/s (sec^{-1}), the silicone tube having a loss modulus of about 0.01 MPa to about 1.0 MPa, measured at 25°C at 1 hertz by dynamic mechanical analysis.

10. The silicone tube according to claim 9, having a standard deviation of an inner diameter of the silicone tube no greater than about 1.1% of an average inner diameter of the silicone tube over an entire length of the silicone tube.

11. The silicone tube according to claims 9 or 10, having a standard deviation of a wall thickness of the silicone tube no greater than about 3.6% of an average wall thickness of the silicone tube over an entire length of the tube.

12. The silicone tube according to claims 9 or 10, wherein the tube is free of a parting line, a knit line, flash, or combination thereof.

13. The silicone tube according to claims 9 or 10, wherein the tube is radiation cured.

14. The silicone tube according to claims 9 or 10, having a crosslink density of about 0.002 mmole/gram to about 0.2 mmole/gram.

15. A silicone extrudate comprising:

a configuration of a film, a block, a circular tube, a rectangular tube, or a shaped profile;

wherein the silicone extrudate comprises a radiation cured silicone formulation, the silicone formulation having a viscosity of less than about 1,000,000 centipoise prior to cure, measured at a shear rate of 10 1/s (sec^{-1}), the silicone extrudate having a loss modulus of about 0.01 MPa to about 1.0 MPa, measured at 25°C at 1 hertz by dynamic mechanical analysis.