What is claimed is:

1. A hose assembly comprising:

a hose defining an internal fluid passage and an exterior surface;

an end connection attached to a first end of the hose;

an insulation material wrapped onto the exterior surface of the hose;

a cover surrounding the insulation material; and

an elastomeric sleeve extending over and in compressive engagement with at least a portion of the end connection and the cover, the elastomeric sleeve being provided in a material configured to permit elastic stretched installation of the elastomeric sleeve over the end connection and the cover;

wherein the insulation material, the cover, and the elastomeric sleeve are each rated for continuous use at a temperature of at least 135°C.

2. The hose assembly of claim 1, wherein the insulation material comprises a PTFE-based aerogel.

3. The hose assembly of any of claims 1 and 2, wherein the insulation material is rated for continuous use at a temperature of at least 250°C.

4. The hose assembly of any of claims 1-3, wherein the insulation material has a maximum thermal conductivity of less than 25 mW/m K at 23°C.

5. The hose assembly of any of claims 1-4, wherein the insulation material is capable of meeting UL94 V-0 flammability ratings.

6. The hose assembly of any of claims 1-5, wherein the insulation material comprises a first strip of insulation material spiral wrapped onto the exterior surface of the hose.

7. The hose assembly of claim 6, wherein the first strip of insulation material is spiral wrapped onto the exterior surface of the hose with an approximately 50% overlap.

8. The hose assembly of any of claims 6 and 7, wherein the insulation material comprises a second strip of insulation material spiral wrapped onto the first strip of insulation material.

9. The hose assembly of any of claims 6-8, wherein the first strip of insulation material has a maximum elongation along a length of 1% at 5 lbs tensile force, and a minimum elongation across a width of 10% at 5 lbs tensile force.

10. The hose assembly of any of claims 1-9, wherein the cover comprises a fabric cover wrapped onto the insulation material.

11. The hose assembly of claim 10, wherein the fabric cover comprises a PTFE/polyester engineered fabric.

12. The hose assembly of any of claims 10 and 11, wherein the fabric cover comprises a fabric strip spiral wrapped onto the insulation material.

13. The hose assembly of claim 12, wherein the fabric strip is spiral wrapped onto the insulation material with an approximately 50% overlap.

14. The hose assembly of any of claims 12 and 13, wherein the fabric strip is spiral wrapped onto the insulation material without adhesive.

15. The hose assembly of any of claims 12-14, wherein the fabric strip is spiral wrapped to maintain a tension of at least 5 lbs.

16. The hose assembly of any of claims 1-9, wherein the cover comprises a heat shrunk polymeric tube.

17. The hose assembly of claim 16, wherein the polymeric tube comprises polyolefin.

18. The hose assembly of any of claims 1-17, wherein the elastomeric sleeve comprises silicone.

19. The hose assembly of claim 18, wherein the elastomeric sleeve comprises a peroxide cured silicone.

20. The hose assembly of any of claims 1-19, wherein the elastomeric sleeve is rated for continuous use at a temperature of at least 250°C.

21. The hose assembly of any of claims 1-20, wherein the hose comprises a corrugated metal tube defining the internal fluid passage.

22. The hose assembly of any of claims 1-21, wherein the hose comprises a braided metal sheath defining the exterior surface.

23. The hose assembly of any of claims 1-22, further comprising a second end connection attached to a second end of the hose, and a second elastomeric sleeve extending over and in compressive engagement with at least a portion of the second end connection and the cover.

24. A method of making an insulated hose assembly, the method comprising:

providing a hose defining an internal fluid passage and an exterior surface, and an end connection attached to a first end of the hose;

wrapping an insulation material onto the exterior surface of the hose;

installing a cover around the insulation material; and

elastically stretching an elastomeric sleeve over and into compressive engagement with at least a portion of the end connection and the cover;

wherein the insulation material, the cover, and the elastomeric sleeve are each rated for continuous use at a temperature of at least 135°C.

25. The method of claim 24, wherein the insulation material comprises a PTFE-based aerogel.

26. The method of any of claims 24 and 25, wherein the insulation material is rated for continuous use at a temperature of at least 250°C.

27. The method of any of claims 24-26, wherein the insulation material has a thermal conductivity of less than 25 mW/m K at 23°C.

28. The method of any of claims 24-27, wherein the insulation material is capable of meeting UL94 V-0 flammability ratings.

29. The method of any of claims 24-28, wherein wrapping the insulation material onto the exterior surface of the hose comprises spiral wrapping a first strip of insulation material onto the exterior surface of the hose.

30. The method of claim 29, wherein spiral wrapping the first strip of insulation material onto the exterior surface of the hose comprises spiral wrapping the first strip of insulation material onto the exterior surface of the hose with an approximately 50% overlap.

31. The method of any of claims 29 and 30, wherein wrapping the insulation material onto the exterior surface of the hose further comprises spiral wrapping a second strip of insulation material onto the first strip of insulation material.

32. The method of any of claims 29-31, wherein the first strip of insulation material has a maximum elongation along a length of 1% at 5 lbs tensile force, and a minimum elongation across a width of 10% at 5 lbs tensile force.

33. The method of any of claims 24-32, wherein the cover comprises a fabric cover, and installing the cover around the insulation material comprises wrapping the fabric cover onto the insulation material.

34. The method of claim 33, wherein the fabric cover comprises a PTFE/polyester engineered fabric.

35. The method of any of claims 33 and 34, wherein wrapping the fabric cover onto the insulation material comprises spiral wrapping a fabric strip onto the insulation material.

36. The method of claim 35, wherein spiral wrapping the fabric strip onto the insulation material comprises spiral wrapping the fabric strip onto the insulation material with an approximately 50% overlap.

37. The method of any of claims 35 and 36, wherein spiral wrapping the fabric strip onto the insulation material comprises spiral wrapping the fabric strip onto the insulation material without adhesive.

38. The method of any of claims 35-37, wherein spiral wrapping the fabric strip onto the insulation material comprises spiral wrapping the fabric strip onto the insulation material to maintain a tension of at least 5 lbs.

39. The method of any of claims 24-32, wherein the cover comprises a polymeric tube, and installing the cover around the insulation material comprises heat shrinking the polymeric tube against the insulation material.

40. The method of claim 39, wherein the polymeric tube comprises polyolefin.

41. The method of any of claims 24-40, wherein the elastomeric sleeve comprises silicone.

42. The method of claim 41, wherein the elastomeric sleeve comprises a peroxide cured silicone.

43. The method of any of claims 24-42, wherein the elastomeric sleeve is rated for continuous use at a temperature of at least 250°C.

44. The method of any of claims 24-43, wherein installing the elastomeric sleeve over and in compressive engagement with the portion of the end connection and the cover comprises elastically expanding the elastomeric sleeve, aligning the expanded elastomeric sleeve with the portion of the end connection and the cover, and allowing the elastomeric sleeve to contract into compressive retained engagement with the portion of the end connection and the cover.

45. The method of any of claims 24-44, wherein the hose comprises a corrugated metal tube defining the internal fluid passage.

46. The method of any of claims 24-45, wherein the hose comprises a braided metal sheath defining the exterior surface.