CLAIMS:

1. A method for manufacturing polymeric material article, the method comprising:

providing polymeric resin,

providing selected amount of two or more types of filler materials within said polymeric resin,

mixing said two or more filler materials into the polymeric ~~matrix~~ resin to provide a polymeric filler mixture,

mixing a hardening material into said polymeric filler mixture,

compressing said polymeric filler mixture under pressure in the range between 20 ~~of up to~~and 350 bar, and

curing said polymeric filler mixture to provide stable polymeric material;

wherein said two or more types of filler material being selected from: graphite flakes, graphene platelets, and Boron-Nitride particles, and

wherein said selected amount of said two or more types of filler material is at least 25wt% with respect to the polymeric resin matrix.

~~**2.** The method of claim 1, wherein said pressure range is greater than atmospheric pressure.~~

~~**3.** The method of claim 1, wherein said pressure range between 20 bar and 350 bar.~~

2. The method of ~~any one or~~ claims ~~1 to 3~~, wherein said ~~further comprising mixing~~ hardening material comprises polyether amine~~into the said polymeric filler mixture~~.

~~**4.**~~**3.** The method of claim 1 or 2, wherein said hardening material comprises crosslinking material.

~~**5.**~~**4.** The method of any one of claims 1 to ~~4~~3, further comprising placing the said polymeric filler mixture in low pressure condition for removing air voids prior to compressing the said polymeric filler mixture.

~~**6.** The method of any one of claims 1 to 5, wherein said filler material comprises carbon based filler material.~~

~~**7.** The method of claim 6, wherein said carbon based material comprises at least one of graphite flakes and graphene platelets.~~

~~8.~~5. The method of any one of claims 1 to ~~6~~4, wherein said two or more types of filler materials ~~carbon based material~~ comprises~~e~~ graphene platelets having average lateral dimension in the range 1-25 micrometer.

~~9.~~6. The method of any one of claims ~~6~~ 1 to ~~8~~5, wherein said two or more types of filler materials ~~carbon based material~~ comprises~~e~~ graphite flakes having average lateral dimension in the range 20-250 micrometer.

~~**10.** The method of any one of claims 1 to 9, wherein said filler material comprises Boron Nitride particles, thereby providing reduced electrical conductivity.~~

~~**11.** The method of any one of claims 1 to 10, wherein said selected amount of filler material is at least 25wt% with respect to the polymeric resin matrix.~~

~~12.~~7. The method of any one of claims 1 to ~~10~~6, wherein said selected amount of said two or more types of filler material is in a range between 55wt% and 80wt% with respect to the polymeric resin matrix.

~~13.~~8. The method of any one of claims 1 to ~~12~~7, providing thermosetting polymeric element having thermal conductivity exceeding 13 W/mK.

~~14.~~9. The method of any one of claims 1 to ~~13~~8, providing polymeric element having thermal conductivity in the range of 13-30 W/mK.

~~15.~~10. The method of any one of claims 1 to ~~12~~7, providing thermosetting polymeric element having thermal conductivity exceeding 16 W/mK.

~~**16.** A composite member comprising hardened mixture comprising epoxy resin and one or more types of filler particles, the composite member is characterized by having average filler to filler particle gap below 20 nm and substantially does not have air voids therein.~~

~~**17.** The composite member of claim 16, wherein said composite member is formed by applying pressure on wet mixture of the epoxy resin and one or more types of filler particles.~~

~~**18.** The composite member of claim 16 or 17, wherein said composite member is formed by applying pressure in the range of 20 bar to 350 bar on wet mixture of the epoxy resin and one or more types of filler particles.~~

~~**19.** The composite member of any one of claims 16 to 18, wherein said mixture further comprises hardening material provided for initiating hardening of the epoxy resin.~~

~~**20.** The composite member of any one of claims 16 to 19, wherein said one or more types of filler particles comprise filler particles selected from: graphite flakes, graphene platelets and boron nitride particles.~~

~~**21.** The composite member of any one of claims 16 to 20, wherein said one or more types of filler particles comprise filler particles comprising graphite flakes having average lateral dimension in the range of 20-250 micrometers.~~

~~**22.** The composite member of any one of claims 16 to 21, wherein said one or more types of filler particles comprise filler particles comprising graphene platelets having average lateral dimension in the range of 1-25 micrometers.~~

~~**23.** The composite member of any one of claims 16 to 22, having thermal conductivity exceeding 13 W/mK.~~

~~**24.** The composite member of any one of claims 16 to 22, having thermal conductivity exceeding 16 W/mK.~~