

## CLAIMS

1. A powder fastener retention material for application to metal sub-miniature fasteners, wherein such sub-miniature fasteners are threaded fasteners having a diameter  
5 from furthest points on the thread of less than about 1.1 mm, comprising a nylon 11 powder having a median average particle size by volume of more than 67 and up to 80 micrometers, and further comprising up to 20 wt% of a density control additive, up to 40 wt % of an adhesion promoter, and up to 2 wt% a flow promoter, wherein wt% is based on the total weight of the powder.
- 10 2. The powder fastener retention material of claim 1 wherein at least 60% by volume of the nylon 11 particles have a particle size of between 30 and 100 micrometers.
3. The powder fastener retention material of any preceding claim wherein the density  
15 control additive comprises limestone.
4. The powder fastener retention material of any preceding claim wherein the adhesion promoter comprises a phenol-functional compound and/or an epoxy functional compound.
- 20 5. The powder fastener retention material of any preceding claim wherein the flow promoter comprises silica.
6. A metal sub-miniature fastener comprising a patch prepared from a fastener  
25 retention material comprising a nylon 11 powder having a median average particle size by volume of more than 67 and less than 80 micrometers, wherein such a sub-miniature fastener is a threaded fastener having a diameter from furthest points on the thread of less than about 1.1 mm.

7. The metal sub-miniature fastener of claim 6 wherein at least 60% by volume of the nylon 11 particles have a particle size of between 30 and 100 micrometers.
8. A method for forming a patch of fastener retention material on a metal sub-miniature fastener, comprising:
- 5 (a) applying to at least one region of the metal sub-miniature fastener a powder retention material in a gaseous stream, wherein such sub-miniature fasteners are threaded fasteners having a diameter from furthest points on the thread of less than about 1.1 mm, and
- 10 (b) melting the powder retention material on the metal sub-miniature fastener, wherein the powder retention material comprises a nylon 11 powder having a median average particle size by volume of more than 67 and less than 80 micrometers, and further comprising up to 20 wt% of a density control additive, up to 40 wt % of an adhesion promoter, and up to 2 wt% a flow promoter, wherein wt% is based on the total weight of the powder.
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9. The method of claim 8 further comprising a step of preheating the metal sub-miniature fastener prior to application of the powder retention material to the metal sub-miniature fastener, and/or a step of post-heating the metal sub-miniature fastener after
- 20 application of the powder retention material to the metal sub-miniature fastener.
10. The method of claim 8 or claim 9 wherein at least 60% by volume of the nylon 11 particles have a particle size of between 30 and 100 micrometers.
- 25 11. Use of a powder fastener retention material for forming a reusable fastener retention patch on a region of a metal sub-miniature fastener, wherein such sub-miniature fasteners are threaded fasteners having a diameter from furthest points on the thread of less than about 1.1 mm, wherein the powder retention material comprises a nylon 11 powder having a median average particle size by volume of more than 67 and less than 80
- 30 micrometers, and further comprising up to 20 wt% of a density control additive, up to 40

wt % of an adhesion promoter, and up to 2 wt% a flow promoter, wherein wt% is based on the total weight of the powder.

12. A kit of parts comprising:
- 5 (a) a metal sub-miniature fastener, wherein such sub-miniature fasteners are threaded fasteners having a diameter from furthest points on the thread of less than about 1.1 mm, and
- (b) a powder retention material powder comprising a nylon 11 powder having a median average particle size by volume of more than 67 and less than 80 micrometers, and further comprising up to 20 wt% of a density control additive, up to 40 wt % of an adhesion promoter, and up to 2 wt% a flow promoter, wherein wt% is based on the total weight of the powder.
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