CLAIMS

1. A cork-based infill mixture for an artificial turf system, wherein the infill mixture comprises a predominance of cork particulates and a quantity of smooth, hard granules interspersed between the particulates to prevent compaction of the cork particulates, wherein the cork particulates have irregular shapes, wherein the material of the granules has a hardness of at least Shore D 40, wherein the granules have a surface for which the frictional coefficient is less than 0.5, the frictional coefficient being a static frictional coefficient measured for two surfaces of the same material in contact according to ASTM G115-10(2013), and wherein the granules have a mean size which is larger than the mean particulate size of the cork particulates.

2. The infill mixture of claim 1, wherein the cork particulates have a mean size between 0.5 and 3 mm.

~~3. The infill mixture of any one of claims 1-2, wherein the cork particulates have irregular shapes.~~

~~4.~~3. The infill mixture of any one of claims 1-~~3~~2, wherein the infill mixture comprises between 70 vol% and 50 vol% of cork particulates and between 30 vol% and 49 vol% of the granules, preferably about 60 vol% of cork particulates and about 40 vol% of the granules.

~~5. The infill mixture of any one of claims 1-4, wherein the infill mixture comprises about 60 vol% of cork particulates and about 40 vol% of the granules.~~

~~6.~~4. The infill mixture of any one of claims 1-~~5~~3, wherein the granules have a substantially spherical shape.

~~7.~~5. The infill mixture of any one of claims 1-~~6~~4, wherein the granules comprise a thermoplastic material, preferably selected from the group comprising: PE, PP, PA, PU, PS, ABS, PC, PET, PEF, PHA and PLA.

8.6. The infill mixture of any one of claims 1-75, wherein the granules are made of a foamed material.

9.7. The infill mixture of any one of claims 1-86, wherein the granules have a bulk density of between 0.1 kg/litre and 0.5 kg/litre, preferably between 0.2 kg/litre and 0.4 kg/litre, more preferably between 0.25 kg/litre and 0.35 kg/litre .

~~10. The infill mixture of any one of claims 1-9, wherein the granules have a mean size which is larger than the mean particulate size of the cork particulates.~~

11.8. The infill mixture of any one of claims 1-107, wherein the granules have a mean size between 1 and 5 mm, preferably between 1.5 mm and 2.0 mm.

12.9. The infill mixture of any one of claims 1-118, wherein the specific density of the granules is at least 20% larger than the specific density of the cork.

~~13. The infill mixture of any one of claims 1-12, wherein the material of the granules has a hardness of at least Shore D 40.~~

14.10. An artificial turf system, comprising:

an artificial grass layer comprising a substrate and pile fibres upstanding from the substrate;

an infill layer, disposed on the substrate and interspersed between the pile fibres, the infill layer comprising the infill mixture of any one of claims 1-139.

15.11. The artificial turf system of claim 1410, wherein the infill layer has a depth of at least 10 mm, more preferably at least 20 mm and optionally more than 30 mm.

16.12. The artificial turf system of claim 14 10 or claim 1511, wherein the ball bounce height is less than 100 cm after 9000 cycles of the LisportXL test.

~~17. Smooth, hard granules for avoiding compaction of an infill layer of an artificial turf system, the artificial turf system comprising a substrate underneath the infill layer and pile fibres upstanding from the substrate, wherein the infill layer comprises a predominance of cork particulates, and wherein the granules are made of a foamed material.~~

~~18.~~13. Method for avoiding compaction of an infill layer of an artificial turf system, the artificial turf system comprising a substrate underneath the infill layer and pile fibres upstanding from the substrate, the method comprising

providing a predominance of cork particulates and a quantity of smooth, hard granules, wherein the cork particulates have irregular shapes, and wherein the material of the granules has a hardness of at least Shore D 40, wherein the granules have a surface for which the frictional coefficient is less than 0.5, the frictional coefficient being a static frictional coefficient measured for two surfaces of the same material in contact according to ASTM G115-10(2013), and wherein the granules have a mean size which is larger than the mean particulate size of the cork particulates,

mixing the smooth, hard granules with the cork particulates ~~material of the infill layer~~ prior to, or subsequent to distributing them over the substrate.

~~19. Use of the infill mixture of any one of claims 1-13 in an artificial turf system.~~

~~20.~~14. Use of the cork-based infill mixture of any one of claims 1-~~13~~ 9 in an artificial turf system, preferably in the construction of a pitch for field hockey, football, American football or rugby.