CLAIMS

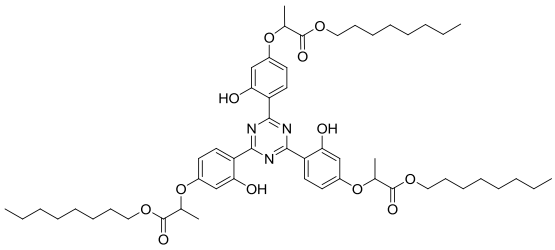
1. An ultrahigh molecular weight polyolefin fiber coated with a coating composition, wherein the coating composition contains a UV stabilizer, characterized in that the amount of UV stabilizer is between 2 wt% and 80 wt.% compared to the total weight of the coating composition based on solids and wherein the coating composition comprises a cross-linked silicone polymer as a carrier for the UV stabilizer.

2. The ~~high strength~~ fiber according to claim 1, wherein the UV absorber is capable of absorbing UV radiation in the range of 290 to 400 nm.

3. The ~~high strength~~ fiber according to claim 1 or 2, wherein the UV absorber is selected from the group consisting of hydroxybenzophenones, hydroxyphenylbenzotriazoles, oxalanilides, phenyl esters, benzooxazinones, cyanoacrylates, formamidine, benzylidene malonates and hydroxyphenyl triazines or combinations thereof.

4. The ~~high strength~~ fiber according to claim 3, wherein the UV stabiliser isselected from hydroxybenzotriazoles and hydroxyphenyl triazines.

5. The ~~high strength~~ fiber according to claim 4, wherein the UV stabliliser is a compound having the formula:



6. The ~~high strength~~ fiber according to any of the preceding claims, ~~which is a high performance polyethylene (HPPE) fiber,~~ made of ultrahigh molecular weight polyethylene (UHMWPE) having an intrinsic viscosity of at least 5 dl/g determined in decalin at 135 °C.

~~7. The high strength fiber according to any of the preceding claims, wherein the coating comprises a cross-linked silicone polymer as a carrier for the UV absorber.~~

~~8.~~7. The ~~high strength~~ fiber according to any of the preceding claims~~claim 7~~, wherein the degree of cross-linking of the cross-linked silicone polymer is at least 20%.

~~9.~~8. The ~~high strength~~ fiber according to any of the preceding claims~~claim 7 or 8~~, wherein the coating comprising the cross-linked silicone polymer is obtained by applying to the fiber, a coating composition comprising a cross-linkable silicone polymer; and cross-linking the cross-linkable silicone polymer.

~~10.~~9. The ~~high strength~~ fiber according to claim ~~9~~8, wherein the cross-linkable silicone polymer comprises a silicone polymer having a cross-linkable end-group, preferably an $C_2$-$C_6$ alkylene end group.

~~11.~~10. The ~~high strength~~ fiber according to claim ~~9~~8 or ~~10~~9, wherein the cross-linkable silicone polymer has the formula:

$$CH_2=CH-(Si(CH_3)_2O)_n-CH=CH_2 \qquad (1)$$

wherein n is a number from 2 to 200.

~~12.~~11. The ~~high strength~~ fiber according to any one of claims ~~9~~ 8 to ~~11~~10, wherein the coating composition further comprises a cross-linker having the formula:

$$Si(CH_3)_3O-(SiCH_3HO)_m-Si(CH_3)_3 \qquad (2)$$

wherein m is a number of 2 to 200.

~~13.~~12. The ~~high strength~~ fiber according to any one of claims ~~9~~ 8 to 11, wherein the coating composition further comprises a platinum catalyst.

~~14.~~13. Use of a ~~high strength~~ fiber according to any of claims 1 to ~~13~~ 12 for making a rope or a fishing net.

~~15.~~14. An article, preferably a rope or fishing net, containing ~~high strength~~ the fiber~~s~~ of any of the claims 1 to 12~~, wherein the article is coated with a coating composition containing a UV absorber~~.