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BINDERS FOR USE IN THE PRODUCTION OF THREADS FROM GLASS FIBERS

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Numerous binders of various compositions exist for use in the production of threads from glass fibers. The binders used hitherto have several disadvantages. With the high drawing speeds applied in the modern production of glass fibers, the known binders are either unable to lubricate the fibers so as to provide for a proper sliding of the fibers at the point where they are grouped together, or they do not dry with sufficient quickness to avoid agglutination of the several layers of threads formed in the winding on drums or spools so that subsequent unwinding is rendered difficult or almost impossible. There do also exist binders which lubricate satisfactorily and dry quickly, but these binders are objectionable in electrical respect and must be washed out of fabrics made from glass threads treated with such binders.

The present invention relates to a binder for use in the production of threads from glass fibers which answers all requirements in as much as it is free from the drawbacks of the known binders.

The binder according to the invention consists of a composition of vegetable or mineral oils and synthetic resins dissolved in the oils in a definite proportion of mixture. A composition of not less than 2% and not more than 15% of synthetic resins and not less than 85% and not more than 98% of vegetable or mineral oils yields a good and efficient binder. The contents of oil may be reduced by substituting part of the oil by a corresponding amount of one of the known solvents, such as carbon tetrachloride.

The new binder satisfactorily lubricates the fibres in a degree commensurate with the high drawing speed. At the point at which the individual fibers are grouped together it bonds the fibers to form a thread and dries so quickly that the thread in being wound on a drum or the like does not agglutinate with the lower layers of threads and can be readily unwound with a desired speed without entailing any disturbances.

The binder also answers the requirements in electrical respect and need not be washed out of the fabrics produced.

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