

Title (en)  
WATERPROOF LACES AND METHOD

Title (de)  
WASSERDICHTER RIEMEN UND VERFAHREN

Title (fr)  
PROCÉDÉ DE LACETS ET IMPERMÉABLE À L'EAU

Publication  
**EP 3051021 A1 20160803 (EN)**

Application  
**EP 16020011 A 20160115**

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Abstract (en)  
The invention relates to treating cord of braided or woven fibres or fibre bundles, such as shoe laces, string, rope, fabric and textiles to make them waterproof. In particular the invention relates to waterproofing laces using small amounts of an elastic polymer within the lace structure. A waterproof length of cord such as a shoe lace or rope is disclosed, the cord having a structure formed of a bundle or bundles of fibres, wherein gaps between the fibres in the structure define capillary channels capable of transporting water within the cord structure, the cord further including elastic polymer regions dispersed within the structure, wherein the regions of elastic polymer surround and include portions of neighbouring fibres of the cord structure thereby forming blockages in the capillary channels between the fibres and preventing water transport within the cord structure. A method of waterproofing a length of cord is also disclosed comprising the steps of soaking the length of cord in a solution of curable pre-polymer and a solvent, causing the solvent to evaporate and causing the pre-polymer to polymerise within the length of cord to form polymer regions dispersed within the structure. Solutions for use in the method of waterproofing lengths of cord are also disclosed.

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Citation (applicant)  
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