

Title (en)  
USE OF SPECIFIC SILICAS FOR INCREASING THE RIGIDITY OF A THERMOPLASTIC WHILE MAINTAINING OR IMPROVING ITS IMPACT RESISTANCE

Title (de)  
VERWENDUNG VON SPEZIELLEN SILICIUMDIOXIDEN ZUR ERHÖHUNG DER STEIFIGKEIT EINES THERMOPLASTS UNTER BEIBEHALTUNG ODER VERBESSERUNG SEINER SCHLAGZÄHIGKEIT

Title (fr)  
UTILISATION DE SILICES SPECIFIQUES POUR AUGMENTER LA RIGIDITE D'UN THERMOPLASTIQUE EN MAINTENANT OU AMELIORANT SA RESISTANCE AU CHOC

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Application  
**EP 05850622 A 20051227**

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• FR 0414097 A 20041230

Abstract (en)  
[origin: WO2006072704A2] The invention relates to the use of a silica having a BET specific surface of at least 60 m<sup>2</sup>/g for increasing the rigidity of a thermoplastic polymeric material while maintaining i.e. improving its impact resistance. The silica used is of the type obtained according to a method involving the drying of a silica suspension obtained by reacting a silicate with an acidulant according to the following successive steps: (i) forming an aqueous starter having a pH between 2 and 5; (ii) simultaneously adding silicate and the acidulant while keeping the pH between 2 and 5; (iii) continuing with only the addition of silicate until a pH between 7 and 10 has been reached; (iv) simultaneously adding silicate and acidulant while keeping the pH of the reaction medium between 7 and 10, and; (v) continuing with only the addition of the acidulant until a pH value lower than 6 has been obtained. The invention also relates to the materials obtained within this scope.

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