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(57) Abstract :

The present invention relates to a biodegradable water-repellent coating for paperboard packaging materials and a process for the preparation thereof. The process for the preparation of the biodegradable water-repellent paperboard packaging material comprises preparing a coating solution by mixing octadecyltrichlorosilane (OTS) and silica (SiO₂) nanoparticles in a solvent for 5 to 10 minutes at ambient temperature, and subjecting a packaging material to treatment with the coating solution, followed by drying to obtain the biodegradable water-repellent paperboard packaging materials. Fig. 1

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