Title (en)

A METHOD FOR PREVENTING WATER ACCUMULATION AND ICE FORMATION ON THE EVAPORATORS AND CONDENSERS OF REFRIGERATORS

Title (de)

VERFAHREN ZUR VERMEIDUNG VON WASSERSTAUUNG UND EISBILDUNG AN VERDAMPFERN UND VERFLÜSSIGERN VON KÄLTEGERÄTEN

Title (fr)

PROCEDE PERMETTANT D'EMPECHER L'ACCUMULATION D'EAU ET LA FORMATION DE GLACE SUR LES EVAPORATEURS ET LES CONDENSEURS DE REFRIGERATEURS

Publication

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Application

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Priority

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Abstract (en)

[origin: WO0006958A2] A humidity resistant method has been developed to prevent water accumulation and ice formation on the refrigerator evaporators and condensers made of aluminium folios, while operating. In order to provide the surface properties that prevent water accumulation and ice formation an appropriate solution with a composition of a chemical formulation the wetting angle of which is between 10 DEG and 20 DEG C has been defined. The said solution was prepared using sol-gel technique and the mixture is applied on the evaporator and condenser surfaces consisting of aluminium folios, at room temperature, by immersing or spraying methods. The coated material was kept in a drying oven at a temperature between 40 DEG and 150 DEG C for 5 minutes, to 5 hours provide the required hardness and adhesion. The wetting angle measured at the coated surfaces was 10 DEG to 20 DEG C and upon testing in conditioning rooms, at a temperature of 0 DEG to -50 DEG C 8 hours to 20 days, no icing was observed on the surface.

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