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Abstract of Published Article

Study of plasticizer diffusion in a solid rocket

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Abstract:

This work aims to determine the diffusion coefficient of dioctyl phthalate (DOP) and dioctyl azelate (DOZ) on the motors. These plasticizers are originally present in the respectively. This species are not chemically bonded insulating and vice versa. A computer program based second Law of diffusion was developed to perform the obtained by gas chromatographic (GC) analyses. The samples adhesive liners; one conventional (LHNA) and the other common feature of both liners was that they were synthesized terminated polybutadiene (HTPB) and diisocyanates. To increase the crosslink density of the LHNT liner and against the diffusion. The effects of the diffusion of the hardness analyses, which were executed on samples at The results showed an increase trend for the samples opposite behavior for the tests carried out at 80°C.

Keywords:

Fick's Law, Diffusion, Bondline, Solid rocket propellant Hardness, Gas chromatograph.



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