Recently, although several materials and methods are developed for removing the problem of microleakage, this problem has not been solved yet. The leakproofing is a preferred characteristic. This property of the materials has been studying in vitro, but it is true that in vivo and in vitro conditions are differ from each other. In this study, class 1 cavities were prepared in first and second primary molars, and recently introduced, four different materials that can be used in deciduous teeth were applied without base. Post-operative compliances of patients were recorded and after three weeks, teeth were extracted and evaluated from the leakage point of view.