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## INFLUENCE OF THE SILANIZATION PROCESS ON SPHERICAL ALUMINOSILICATES

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Analyzing the latest statistical reports, most people ignore the changes in the oral cavity. To restore the aesthetic appearance of our teeth, we use removable or permanent prosthetic restorations. Permanent prosthetic restorations include: prosthetic restorations of the "overley" type, crowns, bridges and veneers. In line with the current trend, i.e. the pursuit of perfect aesthetics, durability and biocompatibility, newer and newer solutions in the field of ceramic materials used in prosthetics are sought and created. The latest materials used in prosthetics are characterized by good durability, light color and translucency, which makes them blend in very well with the patient's natural teeth. Despite the variety of available solutions, a material is still being sought with properties similar to bone. One of such solutions is spherical aluminosilicate. With the growing popularity of materials used in dental technology, problems have been noticed in the connection between the core, i.e. the framework, and the veneered surface, leading to delamination or complete detachment of the veneered layer. In order to prevent this type of negative phenomena, the surface of both chemical and mechanical bonding between these layers should be increased. The use of microspheres as a filler will allow to obtain a composite material not only of much lower density, but also of greater stiffness, stability and surface smoothness, which will translate into the strength of the produced filler for polymers used in biomedical engineering. The main aspect of the research work is the development of the silanization process so that the produced filler can fulfill specific functions in the polymer-ceramic composite. In the research, the silanization process will be based on the modification of the surface of the aluminosilicates.

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