In this study, as a mechanical surface treatment method shot peening was applied to selected two aluminium alloy specimens. Shot peening has changed some important properties of shot peened materials such as mechanical properties, physical properties, surface properties and corrosion resistance. The changing in mechanical properties, surface properties of shot peened aluminium alloys were determined experimentally. Shot peening was applied to widely used AA1050 and AA2024 aluminum alloys which have high corrosion resistance and low density. Before shot peening appropriate heat treatments were applied to the specimens. As a shot peening parameters S230, S330 and S460 steel balls were selected as shot and used for shot peening process. Peening time was selected as from 20 second to 180 seconds. Shot peening was applied as double side of prepared sheet shaped samples. After shot peening, severe plastically deformed layers were determined between 60-150 µm range and ultra-fine grained surface layer on the AA1050 and AA2024 materials. Surface roughness of peened specimens were compared each other and the effect of changing in surface quality on the mechanical properties of used aluminium alloy specimens were determined. Shot peening is limited on the surface of peened parts in a thin layer. That is why the effect of this very limited changing in mechanical properties of peened aluminium alloy specimens were determined.