비구면 Glass 렌즈 성형용 초경합금 코어면 Re-Ir 코팅 효과

김현욱, 김상석^{*}, 김혜정^{*}, 김정호^{*} 조선대학교 대학원 기계공학과, ^{*}한국광기술원 초정밀광학팀

Re-Ir Coating Effect of WC Core Surface for Aspheric Glass Lens Molding

Hyun-Uk Kim, Sang-Suk Kim, Hye-Jeong Kim, Jeong-Ho Kim Chosun University Graduate School, Ultra Precision Optics Team, KOPTI

Abstract: As Rhenium-Iridium(Re-Ir) coating possesses such features as, high hardness, high elasticity, abrasion resistance and chemical stability, there have been exerted continuous efforts in research works in a variety of fields, and this technology has also been applied widely to industrial areas.

In this research, the optimal grinding condition was identified using Microlens Process Machine in order to contribute to the development of aspheric glass lens for mobile phone module having 3 mega pixel and 2.5X zoom, and molding core(WC) was manufactured having performed ultra-precision machining. Effects of Re-Ir coating on form accuracy(P-V) of molding core and surface roughness(Ra) were measured and evaluated.

Key Words: Rhenium-Iridium(Re-Ir), Microlens Processing Machine(ASP01), Molding Core