

~~The invention discloses~~ A light and pressure-proof fast-decomposed cast magnesium alloy ~~which~~ can be used as a tripping ball material for a multi-stage sliding sleeve staged-fracturing technique. The light and pressure-proof fast-decomposed cast magnesium alloy is ~~prepared from~~ composed of the following components: 13- to 25% of Al, 2- to 15% of Zn, 0.1- to 5% of Fe, 0.05- to 5% of Cu, 0.05- to 5% of Ni, 0- to 5% of Ag, 0.05- to 0.5% of Zr, 0.05- to 0.5% of Ti, and the ~~balance of remainder is~~ Mg. The preparation method comprises the following steps ~~of~~: weighing the respective components according to the designed component ~~ratio~~ proportions of the magnesium alloy; ~~firstly, putting~~ then first loading pure magnesium and pure aluminum into a smelting furnace, ~~putting~~ next loading pure zinc and an intermediate ~~alloy~~ alloys of the other components into a magnesium-aluminum alloy melt after melting; increasing the temperature for melting, refining, degassing, waiting for a while and ~~stewing after warming to melt~~; then casting in a protective atmosphere. The light and pressure-proof fast-decomposed cast magnesium alloy of the present invention is reasonable in component ratio, and simple in ~~craft~~ the production process; the light and pressure-proof fast-decomposed cast magnesium alloy can be obtained by controlling the ~~ingredients~~ components of the alloy; the alloy decomposition performance exceeds that of ~~the~~ a traditional cast magnesium alloy; the demands of the multi-stage sliding sleeve staged-fracturing technique on the decomposition performance of the tripping ball material can be met; industrialized application can be achieved; application of the magnesium alloy in the field of exploitation of petroleum and gas is thus expanded.