ZINC-INDIUM-MAGNESIUM active solder

Title	ZINC-INDIUM-MAGNESIUM active solder
Basic technology outline	Active leadless solder for higher application temperatures Active soft leadless solder on Zn-In base with Mg addition Allows direct soldering non-metalic materials without previous coating Solder is designed for higher application temperatures (~300 °C) The wetting speed, the area of spread, the contact angle and the shear strenght of bonds are on standard industrial level
Technology deployment	Direct soldering of metallic and non-metallic materials Usable in electronics, energy industry, research and development Allows direct soldering metallic materials with non-metallic or special materials (like tungsten) Primary designed for ultrasound, laser and combined soldering Usable in sequent soldering process Suitable for soldering without flux

Advantages over currently used solutions	Unique combination of features and use possibilities Does not contain Pb (harmful) and Au (costly) Suitable for higher application temperatures – unique atribute for active leadless solders Better mechanical characters in comparison with solders containing Bi
Current status of technology	Patented and tested technology (Slovak) patent pending (5011-2016) Tested in relevant conditions Conducted and analyzed solded bonds between Si, Al_2O_3, Cu and others
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