We present an adhesive bonding technique developed for SU-8 based "lab-on-a-chip" systems with integrated optical components. Microfluidic channels and optical components (e.g. wave-guides) are defined in SU-8 photoresist on a Pyrex glass substrate. The microfluidic channels are sealed by a second Pyrex substrate, bonded on top of the cross-linked SU-8 structure using an intermediate layer of 950K molecular weight poly-methylmethacrylate (PMMA). Due to a lower refractive index of PMMA, this bonding technique offers optical waveguiding in the SU-8 structures in combination with good sealing of the microfluidic channels. The bonding technique is investigated with respect to bonding temperature in the range of 50 - 150 deg. C and at bonding forces of 1000 N and 2000 N on a 4-inch wafer. A maximum bonding strength of 16 MPa is achieved for the PMMA to SU-8 bonding at a bonding temperature of 110 deg. C and at a bonding force of 2000 N. Furthermore 950K PMMA shows no tendency to flow into the microfluidic channels due to its high viscosity.