Electronic Supplementary Material (ESI) for Lab on a Chip

Supporting Information

Dynamically reconfigurable Fibre Optical Spanner

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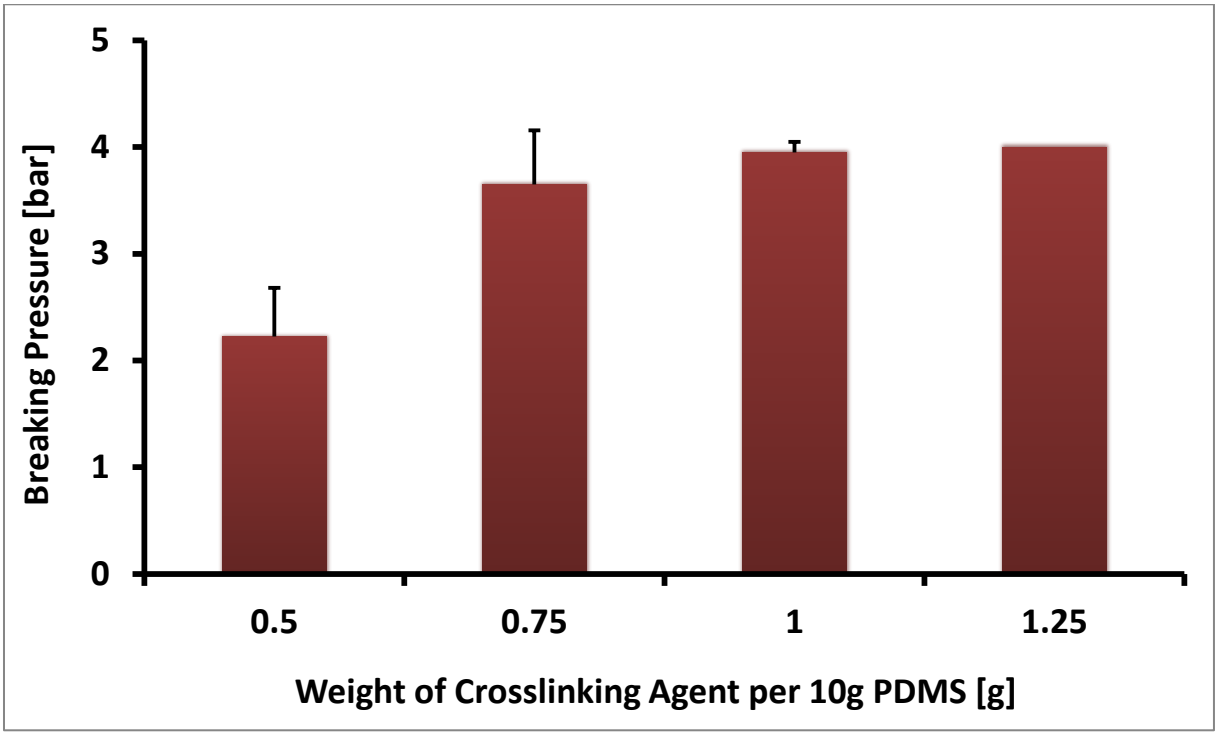

Figure S1. Breaking pressures for different PDMS : crosslinking agent ratios

PDMS was mixed in different ratios with the crosslinking agent and baked at 80° for 3h. For each condition the breaking pressure of the fibre-optical spanner was monitored by increasing the pressure in the top hollow chamber until 4bar and measuring the breaking point. If the device didn't break at 4bar, this value was taken.For higher amounts of crosslinking agent in relation to PDMS, the breaking pressure changes to higher values.

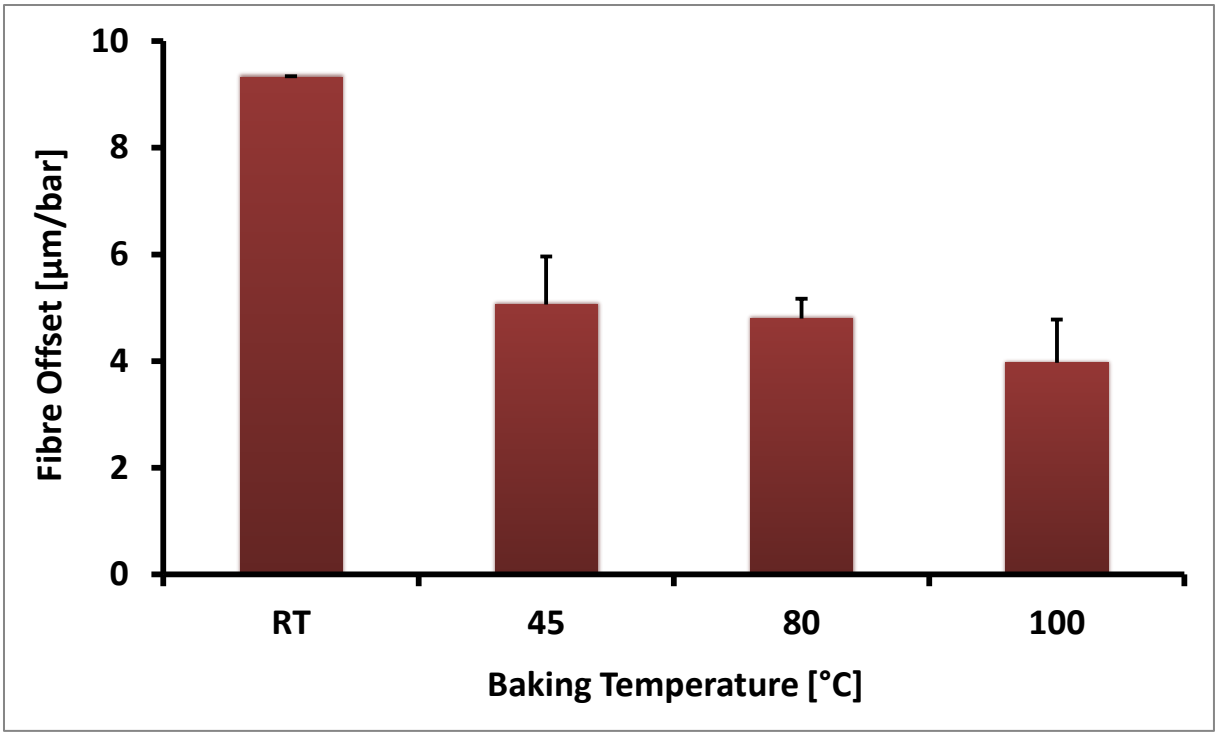

Figure S2. Fibre offsetefficiency for different baking temperatures

1:10 PDMS to crosslinking agent was baked withvarying temperatures from 72h at room temperature (RT), 24h at 45°, 3h at 80° to 1h at 100°. The resulting fibre offset of the fibreoptical spanner device is shown for each condition. For measurement the top channel of the device was constantly used, providing close attachment of the fibre to the channel walls. There is no significant difference in the offset observable regarding the baking temperatures higher than 45°C. An exception is the PDMS cured in room temperature, as it has softer properties. This could also be due to the baking time, as it might not be entirely cured after 72h.