

## Supporting informations

### Synthesis of PLA-poly(ether urethane)-PLA copolymers and design of biodegradable anti-adhesive membranes for orthopaedic applications

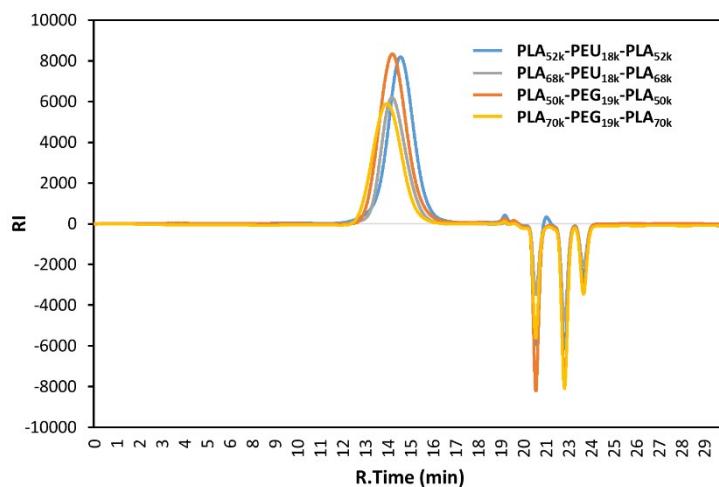
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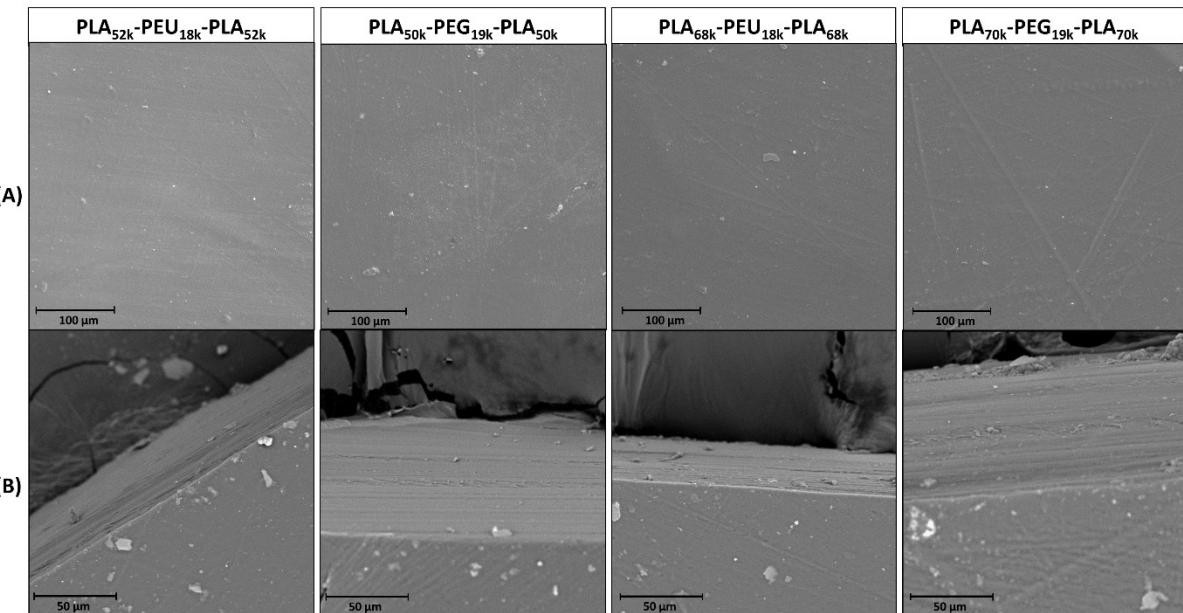
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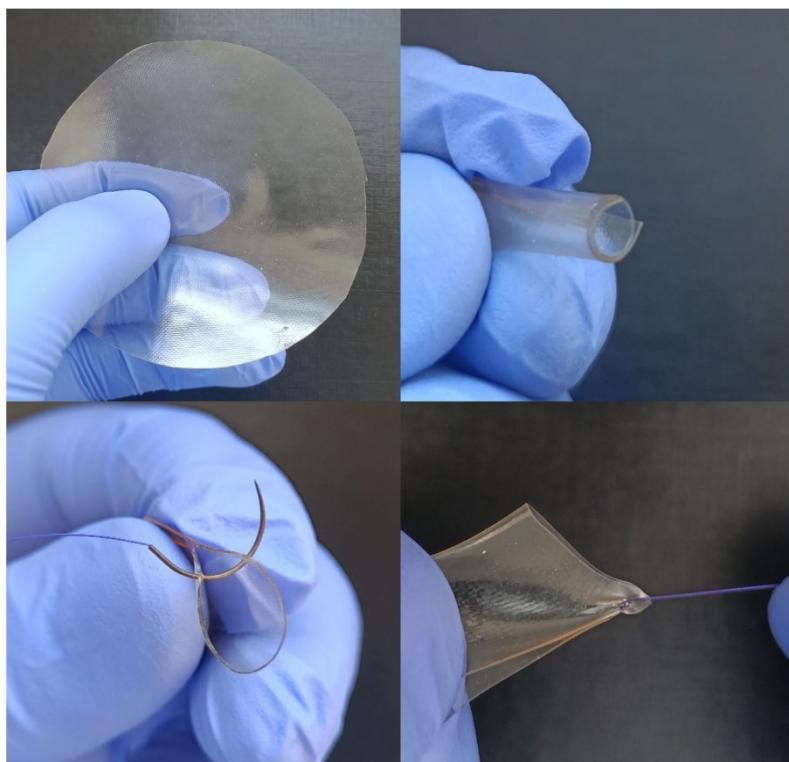
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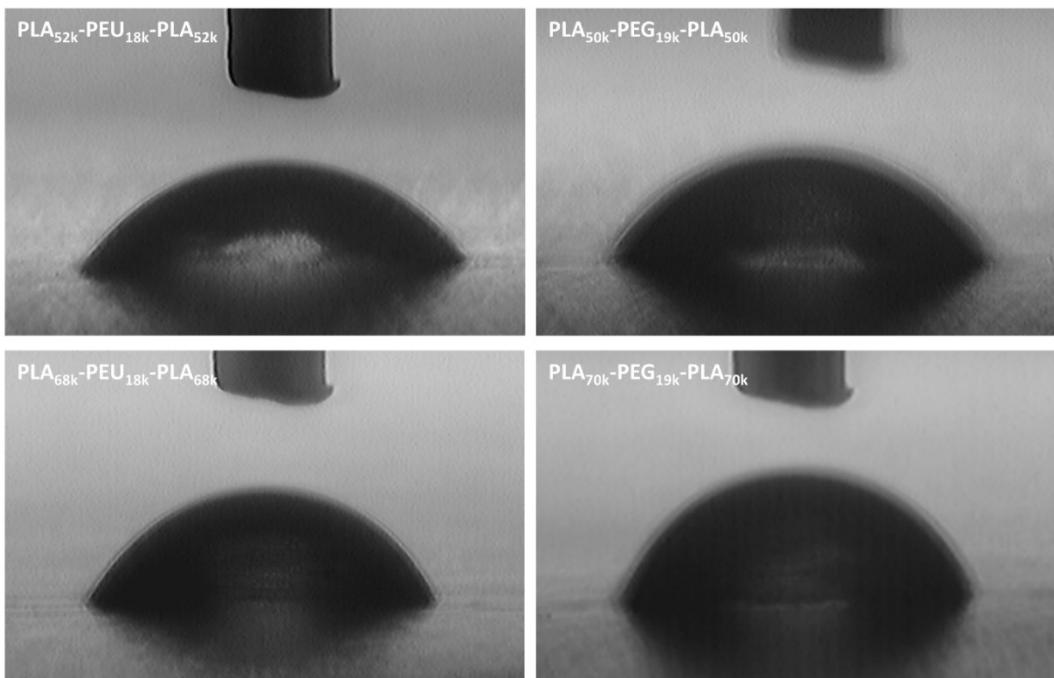
**Fig. S1** SEC analysis of triblock copolymers in THF



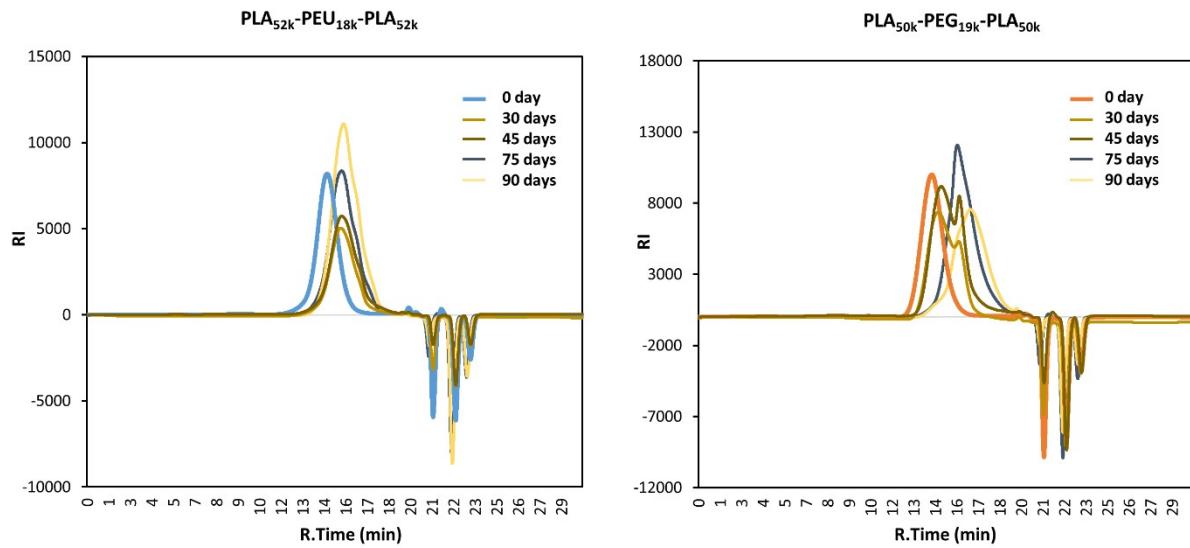
**Fig. S2** SEM images of membranes based on triblock copolymers (A) Membrane surface (scale barre: 100  $\mu\text{m}$ ), (B) Membrane cross section (scale barre: 50  $\mu\text{m}$ ).



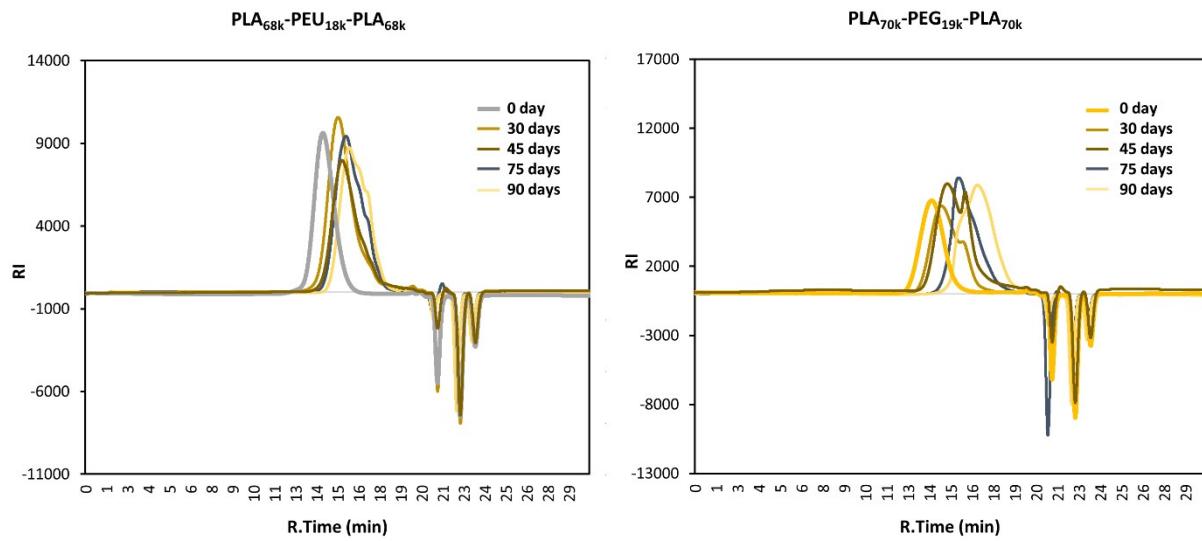
**Fig. S3** Tests of resistance, flexibility and suturability of PEG based-copolymer membranes



**Fig. S4** Water contact angle images of PEU and PEG based-copolymer membranes



**Fig. S5** SEC analysis of the degraded products of  $\text{PLA}_{52k}\text{-PEU}_{18k}\text{-PLA}_{52k}$  and  $\text{PLA}_{50k}\text{-PEG}_{19k}\text{-PLA}_{50k}$  membranes



**Fig. S6** SEC analysis of the degraded products of PLA<sub>68k</sub>-PEU<sub>18k</sub>-PLA<sub>68k</sub> and PLA<sub>70k</sub>-PEG<sub>19k</sub>-PLA<sub>70k</sub> membranes