

Hybrid Membranes of the Ureasil-Polyether Containing Glucose for Future Application in Bone Regeneration

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Table S1. Quantities of reagents used in the synthesis of precursors.

<i>Precursor</i>	<i>ICPTES</i>	<i>Polymer</i>	<i>Ethanol</i>
PEO500	21.67 mL	25 g	50 mL
		(PEO - molecular weight 500 g.mol ⁻¹)	
PPO4000	3.26 mL	25g	50 mL
		(PPO - molecular weight 4000 g.mol ⁻¹)	

Table S2. Tg values (°C) obtained from the DSC curves for the hybrid membranes.

<i>Material</i>	<i>Tg (°C)</i>
Ureasil-PEO500 (100%)	- 30.40
Ureasil-PEO500 (100%) + 6% glucose	- 23.90
Ureasil-PPO4000 (100%)	- 62.80
Ureasil-PPO4000 (100%) + 6% glucose	- 62.92
Ureasil-PEO500/PPO4000 (20/80)	- 62.82
Ureasil-PEO500/PPO4000 (20/80) + 6% glucose	- 62.99
Ureasil-PEO500/PPO4000 (40/60)	- 62.20
Ureasil-PEO500/PPO4000 (40/60) + 6% glucose	- 62.34

Table S3. Information obtained through the Korsmeyer-Peppas equation for the glucose release curves from the hybrid membranes.

<i>Material</i>	<i>r</i> ²	<i>n</i>	<i>Release mechanism</i>
Ureasil-PEO500/PPO4000 (20/80) + 6% glucose	0.9806	0.48	Anomalous transport (non-Fickian)
Ureasil-PEO500/PPO4000 (40/60) + 6% glucose	0.9357	0.47	Anomalous transport (non-Fickian)

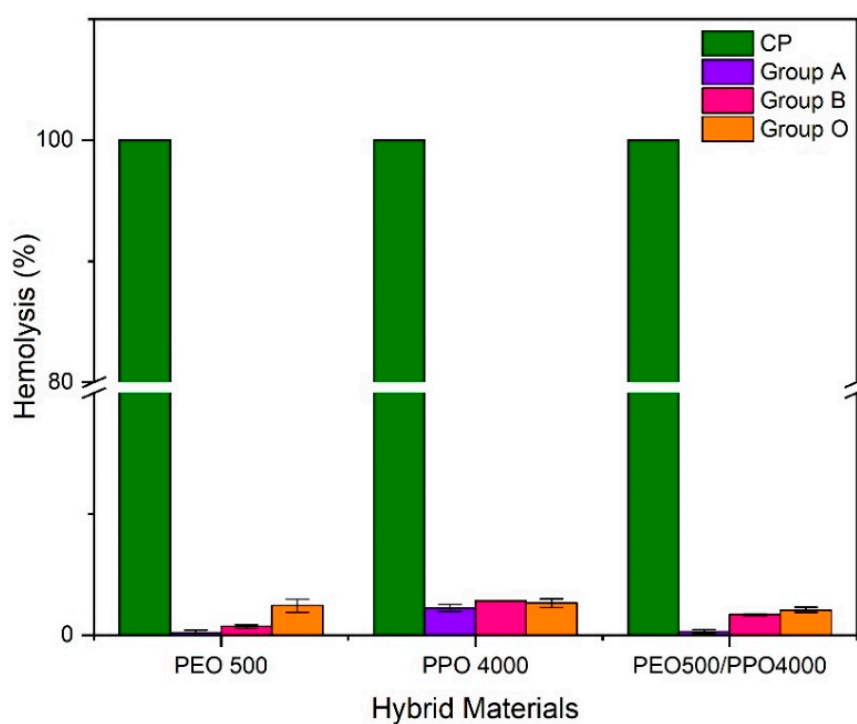


Figure S1. Comparison of the percentage of hemolysis between loaded 6% glucose membranes, ureasil-PEO500 and PPO4000, and blend of ureasil-PEO500/PPO4000 (50/50).