*Article*

# Development of a Novel Biobased Polyurethane Resin System for Structural Composites

**Oihane Echeverria-Altuna [1], Olatz Ollo [1], Izaskun Larraza [2], Cristina Elizetxea [1], Isabel Harismendy [1,*] and Arantxa Eceiza [2,*]**

[1] TECNALIA, Basque Research and Technology Alliance, Science and Technology Park, Gipuzkoa Mikeletegi Pasealekua 2, 2009 Donostia-San Sebastian, Spain

[2] 'Materials + Technologies' Research Group (GMT), Department of Chemical and Environmental Engineering, Faculty of Engineering of Gipuzkoa, University of the Basque Country, Plaza Europa 1, 20018 Donostia-San Sebastian, Spain

* Correspondence: isabel.harismendy@tecnalia.com (I.H.); arantxa.eceiza@ehu.eus (A.E.)

## Supplementary Materials

**Table S1.** Kinetic model parameters for the BIO-PUR systems.

| | | BIO-PUR2 | BIO-PUR3 |
|---|---|---|---|
| $K_1$ | $s^{-1}$ | 2.59E+09 | 2.04E+09 |
| $E_1$ | ºK | 5.76E+04 | 1.01E+04 |
| $K_2$ | $s^{-1}$ | 7.32E+05 | 7.57E+04 |
| $E_2$ | ºK | 6.55E+03 | 5.56E+03 |
| **m** | | 2.42E-01 | 4.96E-01 |
| **n** | | 2.02E+00 | 2.39E+00 |
| $\alpha_{c1}$ | | -3.08E-01 | -9.71E-01 |
| $\alpha_{c2}$ | | 3.41E-03 | 5.00E-03 |
| $E_{d1}$ | | -1.71E+02 | 7.28E+02 |
| $E_{d2}$ | | 8.10E-01 | 2.77E+01 |

**Table S2.** Viscosity model parameters for the BIO-PUR systems.

| | | BIO-PUR2 | BIO-PUR3 |
|---|---|---|---|
| $\eta_0$ | Pa s | 1.73E-07 | 2.93E-06 |
| **E** | ºK | 7011 | 6300.2 |
| **p1** | | -2.2 | -4.4 |
| **p2** | | 10.8 | 10.0 |

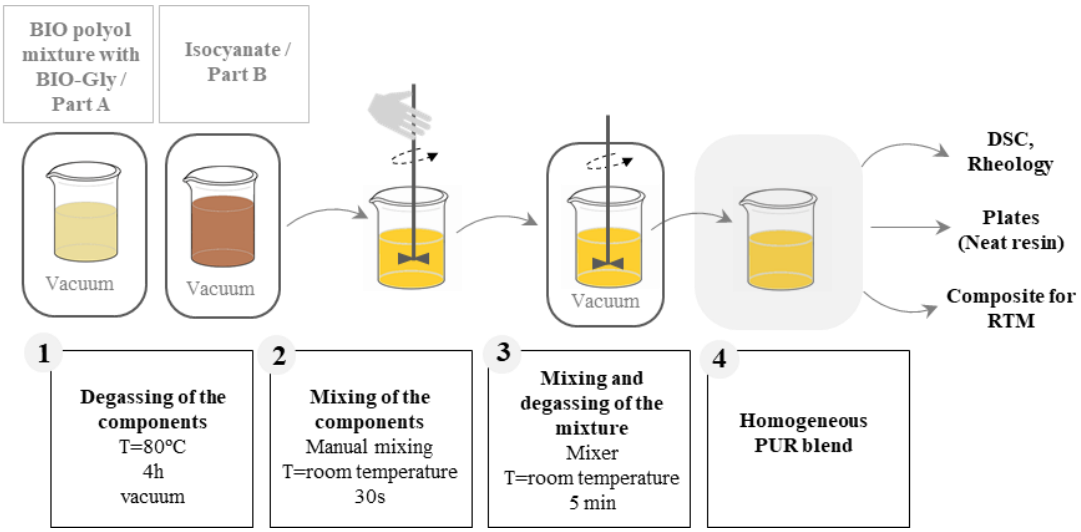


**Figure S1.** Polyurethane resin system preparation.

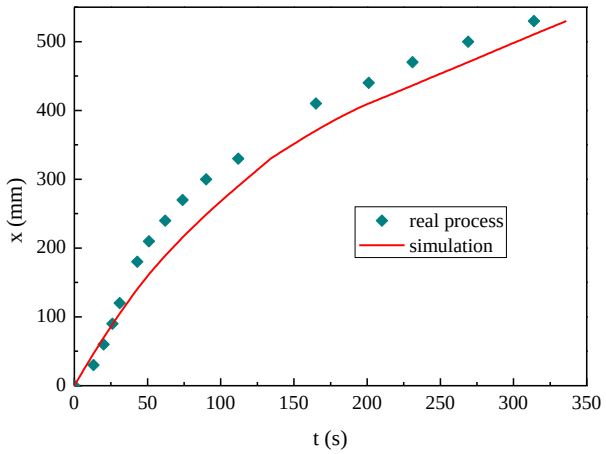


**Figure S2.** Flow front evolution for BIO-PUR3. Experimental (symbols) and simulation (—) results.