**Bio-degradable polyurethane foams produced by liquefied polyol from wheat straw biomass.**

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**SUPPLEMENTARY DATA**

**Table S1**. Apparent density and mechanical properties values of LWS-PU-foams.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sample | Apparent density (Kg/m3) | Compressive strength (CS, KPa) | Young’s Modulus (YM, KPa) | Specific CS (KPa·m3/Kg) | Specific YM (KPa·m3/Kg) |
| BT | 370.1 ± 0.0 | 3.2 ± 0.0 | 82.3 ± 0.0 | 0.009 | 0.222 |
| 80:20T | 42.0 ± 6.1 | 7.2 ± 0.0 | 43.1 ± 1.8 | 0.171 | 1.026 |
| 60:40T | 30.0 ± 7.6 | 11.7 ± 0.0 | 167.5 ± 3.5 | 0.390 | 5.583 |
| 50:50T | 103.0 ± 9.4 | 5.0 ± 0.0 | 89.3 ± 1.4 | 0.049 | 0.867 |
| BM | 280.0 ± 3.2 | 5.3 ± 0.0 | 24.9 ± 2.2 | 0.019 | 0.089 |
| 80:20M | 153.0 ± 2.4 | 17.2 ± 0.0 | 58.1 ± 1.4 | 0.112 | 0.380 |
| 60:40M | 52.0 ± 5.8 | 5.6 ± 0.0 | 89.4 ± 2.7 | 0.108 | 1.719 |
| 50:50M | 224.0 ± 8.9 | 7.8 ± 0.0 | 134.2 ± 3.2 | 0.035 | 0.559 |

**Table S2**. Thermal characters and biodegradability of LWS-formulated foams.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sample | T1 (ºC) | T2 (ºC) | T3 (ºC) | Final residue (%) | *%D*30 | *%D*60 |
| BT | 284.00 | 354.33 | 436.33 | 0 | - | - |
| 80:20T | 280.33 | 354.33 | 447.83 | 9.86 | 5.09 ± 0.06 | 8.48 ± 1.68 |
| 60:40T | 278.50 | 354.33 | 441.33 | 11.67 | 5.60 ± 1.34 | 8.49 ± 1.90 |
| 50:50T | 269.87 | 356.33 | 438.67 | 12.39 | 8.57 ± 3.37 | 12.25 ± 2.58 |
| BM | 300.00 | 348.17 | 457.57 | 6.20 | 0.23 ± 0.05 | 3.18 ± 1.32 |
| 80:20M | 302.17 | 351.50 | 454.50 | 11.15 | 2.08 ± 0.15 | 5.72 ± 1.43 |
| 60:40M | 302.17 | 353.33 | 453.17 | 12.91 | 7.31 ± 1.66 | 9.88 ± 1.81 |
| 50:50M | 297.00 | 353.33 | 447.67 | 12.38 | 7.21 ± 1.55 | 11.28 ± 2.87 |