

## Supplementary material

**Table S1.** Waste material in Iraq construction industry.

| Material     | Mean  | SD   |
|--------------|-------|------|
| Sand         | 12.62 | 1.19 |
| Gravel       | 10.86 | 1.25 |
| Cement       | 4.00  | 1.41 |
| Steel        | 3.96  | 1.34 |
| Brick        | 15.21 | 1.36 |
| Thermo-stone | 12.13 | 2.69 |

**Table S2.** Pairwise comparison between mean of percentage among different waste materials.

| (I) test | (J) test     | Mean Difference (I-J) | SE    | P Value |
|----------|--------------|-----------------------|-------|---------|
| Sand     | Gravel       | 1.663*                | 0.22  | < 0.01  |
| Sand     | Cement       | 8.526*                | 0.329 | < 0.01  |
| Sand     | Steel        | 8.567*                | 0.372 | < 0.01  |
| Sand     | Brick        | -2.686*               | 0.272 | < 0.01  |
| Sand     | Thermo-stone | 0.502                 | 0.489 | 1       |
| Gravel   | Cement       | 6.863*                | 0.331 | < 0.01  |
| Gravel   | Steel        | 6.904*                | 0.349 | < 0.01  |
| Gravel   | Brick        | -4.349*               | 0.302 | < 0.01  |
| Gravel   | Thermo-stone | -1.161                | 0.538 | 0.576   |
| Cement   | Steel        | 0.041                 | 0.392 | 1       |
| Cement   | Brick        | -11.212*              | 0.313 | < 0.01  |
| Cement   | Thermo-stone | -8.024*               | 0.492 | < 0.01  |
| Steel    | Brick        | -11.253*              | 0.34  | < 0.01  |
| Steel    | Thermo-stone | -8.065*               | 0.554 | < 0.01  |
| Brick    | Thermo-stone | 3.188*                | 0.498 | < 0.01  |