**Table S13** Accelerated stability study of prepared hydrogels at 25 ± 2°C/60 ± 5% RH

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Formulations | TFG F2 | | | Plain Gel | | |
|  | 0 month | 3 months | 6 months | 0 month | 3 months | 6 months |
| Appearance | White color | | | Pale yellow | | |
| Consistency and homogeneity | Gel-like consistency with smooth and homogeneous properties | | | Gel-like consistency with smooth and homogeneous properties | | |
| Spreadability (cm) | 5.034 ± 0.048 | 4.987 ± 0.035 | 4.873 ± 0.037 | 5.23 ± 0.089 | 5.156 ± 0.027 | 5.024 ± 0.044 |
| Extrudability (g) | 154.372 ± 1.428 | 156.545 ± 2.334 | 158.357 ± 1.887 | 146.125 ± 2.147 | 147.317 ± 2.753 | 149.354 ± 1.738 |
| pH | 6.736 ± 0.018 | 6.735 ± 0.075 | 6.686 ± 0.055 | 6.652 ± 0.035 | 6.655 ± 0.103 | 6.631 ± 0.047 |
| Viscosity (mPa.s) at a Shear rate of 25.1/sec | 450.042 ± 3.464 | 455.754 ± 2.117 | 457.454 ± 2.786 | 407.73 ± 2.137 | 410.557 ± 3.154 | 412.857 ± 2.244 |
| Drug content (%) | 98.647 ± 1.124 | 97.754 ± 2.225 | 97.346 ± 1.633 | 98.436 ± 1.159 | 97.368 ± 1.354 | 96.843 ± 2.433 |
| Syneresis (%) | 0.671 ± 0.001 | 0.697 ± 0.003 | 0.712 ±0.002 | 0.941 ± 0.003 | 0.988 ± 0.001 | 0.997 ± 0.003 |
| Drug-excipient compatibility | Compatible | | | Compatible | | |

Results are presented as Mean ± SD