# Electronic Supporting Information

**Table A.** Values of total surface free energy (γT) and dispersive (γD) and polar (γP) surface free energy components for water, diiodomethane and formamide.

|  |  |  |  |
| --- | --- | --- | --- |
| Fluid | γT (mN/m) | γD (mN/m) | γP (mN/m) |
| Water | 72.8 | 21.8 | 51.0 |
| Diiodomethane | 50.8 | 50.8 | 0.0 |
| Formamide | 58.2 | 39.5 | 18.7 |

**Table B.** Values of the water contact angle (WCA) of Si-PEO, PL-(Si-PEO), PD-(Si-PEO), NuSil-(PEO) and NuSil-(Si-control) surfaces with time.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Time (s) | 0-(Si-PEO) | PL-(Si-PEO) | PD-(Si-PEO) | NuSil-(Si-PEO) | NuSil-(Si-control) |
| WCA (°) | SD | WCA (°) | SD | WCA (°) | SD | WCA (°) | SD | WCA (°) | SD |
| 0 | 107.2 | 10.0 | 108.1 | 3.2 | 114.8 | 1.2 | 104.9 | 1.9 | 118.0 | 0.6 |
| 10 | 97.1 | 9.9 | 97.6 | 2.7 | 78.2 | 6.2 | 73.7 | 14.0 | 118.0 | 0.6 |
| 20 | 70.2 | 11.9 | 86.2 | 1.8 | 55.1 | 1.3 | 44.3 | 18.3 | 118.0 | 0.6 |
| 30 | 54.1 | 5.2 | 77.2 | 0.5 | 46.3 | 1.3 | 39.3 | 12.4 | 118.0 | 0.6 |
| 40 | 45.9 | 5.7 | 72.9 | 1.2 | 41.1 | 1.6 | 35.5 | 7.8 | 118.0 | 0.6 |
| 50 | 42.5 | 5.3 | 69.7 | 0.9 | 36.8 | 0.7 | 32.0 | 3.3 | 118.0 | 0.6 |
| 60 | 39.4 | 5.4 | 67.8 | 0.6 | 34.5 | 0.6 | 31.2 | 3.2 | 118.0 | 0.6 |
| 70 | 37.7 | 5.2 | 66.2 | 0.8 | 33.9 | 1.2 | 31.1 | 2.1 | 118.0 | 0.6 |
| 80 | 36.2 | 5.0 | 64.8 | 0.8 | 32.4 | 1.3 | 29.8 | 2.8 | 118.0 | 0.6 |
| 90 | 35.1 | 4.6 | 63.2 | 1.1 | 31.8 | 1.9 | 29.2 | 2.5 | 118.0 | 0.6 |
| 100 | 34.4 | 4.8 | 62.2 | 1.1 | 30.9 | 1.6 | 28.7 | 2.2 | 118.0 | 0.6 |
| 110 | 32.5 | 3.1 | 61.1 | 1.1 | 29.8 | 2.1 | 28.0 | 2.1 | 118.0 | 0.6 |
| 120 | 32.0 | 3.2 | 60.2 | 1.1 | 29.2 | 1.9 | 27.4 | 1.9 | 118.0 | 0.6 |
| 130 | 31.2 | 3.7 | 59.3 | 1.0 | 28.4 | 1.9 | 26.9 | 1.9 | 118.0 | 0.6 |
| 140 | 30.6 | 3.3 | 58.4 | 1.0 | 27.6 | 1.9 | 26.4 | 1.7 | 118.0 | 0.6 |
| 150 | 30.1 | 3.5 | 56.6 | 0.2 | 28.2 | 0.7 | 26.0 | 1.8 | 118.0 | 0.6 |



**Figure A**: Variation of diidomethane contact angle with time of PEO-modified silicone (“Si-PEO”) coated onto stainless steel (SS) substrates having different pretreatments as well as an unmodified silicone coated on NuSil SP 120 treated SS [“NuSil-(Si-control)”]. *(Note: Standard deviation values for WCA of PL-(Si-PEO) and NuSil-(Si-control) surfaces are too small to be clearly presented on the figure (see ESI, Table B).)*