0.0

-0.5

-1.0

Dipole moment 0.048 0.36 -0.31 -0.78 -0.66 0.89 0.059 0.49 -0.2 0.85 -0.35 0.028 0.22 -0.86 0.74 1 Chain length -0.59 0.49 -3.2e-17 1 -0.47 -0.39 0.95 -0.68 0.9 -0.8 -0.28 -0.086 0.72 -0.5 -0.21 -0.0032 COF -0.24 0.091 -0.012 -0.89 1 -0.8 0.041 -0.45 0.61 -0.27 0.77 -0.11 0.85 -0.069 0.45 0.67 Intercept -0.49 -0.86 1 0.91 0.75 -0.66 0.14 -0.24 0.81 -0.43 -0.15 -0.079 -0.51 -0.38 -0.95 0.35 Nematic order 0.3 0.4 0.19 0.21 0.55 0.92 -0.85 1 0.89 -0.75 0.32 0.071 0.61 -0.034 -0.62 0.25 Δ Nematic order 0.054 -0.54 -0.67 -0.68 0.41 1 -0.71 0.37 -0.48 -0.27 0.68 -0.48 0.2 -0.16 0.31 0.16 Tilt angle -0.11 0.93 -0.66 -0.41 0.93 -0.63 1 -0.9 0.77 -0.56 0.73 -0.33 -0.69 0.47 0.51 Δ Tilt angle -0.86 -0.57 -0.91 1 -0.63 0.46 0.29 -0.22 0.66 -0.7 -0.31 -0.38 0.38 -0.55 0.77 0.37 Interdigitation -0.41 -0.73 0.88 -0.79 -0.78 0.83 -0.44 0.59 0.038 0.24 1 -0.65 0.88 0.75 -0.7 -0.49 Δ Interdigitation 0.61 0.88 1 -0.56 -0.038 0.81 -0.16 -0.67 -0.42 0.44 -0.68 0.16 0.22 -0.41 0.91 -0.48 Roughness 0.91 0.59 -0.52 0.68 -0.68 -0.038 -0.033 -0.4 0.44 -0.2 -0.25 -0.11 0.76 -0.37 -0.24 Δ Roughness -0.019 0.79 -0.42 -0.23 -0.33 0.42 -0.7 0.27 -0.46 0.28 0.011 0.14 0.34 0.92 Interaction energy -0.71 -0.91 -0.0064 1 -0.57 0.67 -0.11 -0.86 0.17 -0.82 0.73 -0.68 -0.077 -0.31 -0.64 0.4 Δ Interaction energy -0.27 -0.76 -0.33 -0.36 -0.55 0.49 -0.68 -0.17 0.78 -0.34 0.5 0.58 0.21 0.23 0.19 1 Interaction energy A Interaction energy Molecular Weight Dipole moment A Interdigitation A Roughness Surface dred Chain length Nematic Order Nematic order A Tilk angle Interdigitation Roughness

CO^x

Molecular weight

Surface area

0.97

1

0.98

0.83

0.86

0.88 -1.9e-17 -0.72

-0.83

0.66

0.78

-0.46

-0.62

0.55

0.75

-0.51

-0.047

-0.55

-0.59

Tilk angle

0.93

-0.72

0.32

-0.79

-0.27

0.24

-0.42

0.3

-0.86

-0.82

-0.51

-0.3