Surface Energy Data for Nylon 6 (polycaprolactum, polyamide 6), CAS # 25038-54-4

Source[a]	Mst. Type[b]	Data[c]	Comments[d]
Fort, 1964[17]	Critical ST	$\gamma_c = 42$ mJ/m^2; 22°C, 65% RH	Test liquids: water, glycerol, and formamide. Polymer samples prepared by bulk melt polymerization and finish formed in contact with aluminum foil.
Van Krevelen, 1976[85]	Critical ST	$\gamma_c = 43$ mJ/m^2; 23°C	Test liquids not known.
Fort, 1964[17]	Contact angle	$\theta_W^A = 70°$; 22°C, 65% RH	Polymer samples prepared by bulk melt polymerization and finish formed in contact with aluminum foil.
Omenyi, 1981[178]	Contact angle	$\theta_W^A = 60.5°$; 22°C	
Yasuda, 1988[173]	Contact angle	$\theta_W^A = 63.1°-63.5°$; no temp cited	25.0% crystallinity.
Yasuda, 1988[173]	Contact angle	$\theta_W^A = 61.9°-62.9°$; no temp cited	39.6% crystallinity.
Yasuda, 1988[173]	Contact angle	$\theta_W^A = 62.3°$; no temp cited	46.1% crystallinity.
Extrand, 2002[143]	Contact angle	$\theta_W^A = 69.2°$; $\theta_W^R = 42.4°$, d$\theta_W = 26.8°$; 23°C	Measured by sessile drop method; cleaned with hexane and dried under vacuum.
Gotoh, 2004[92]	Contact angle	$\theta_W^A = 70.6°$; no temp cited	Measured by sessile drop method.
Omenyi, 1981[178]	Contact angle	$\gamma_c = 46.6$ mJ/m^2; 22°C	Test liquids not known; calculated by equation of state method.
Penn, 1981[306]	Contact angle	$\gamma_s = 38.4$ mJ/m^2 ($\gamma_s^d = 31.2$, $\gamma_s^p = 7.2$); 20°C	Test liquids not known.
Schoff, 2003[263]	Contact angle	$\gamma_s = 47$ mJ/m^2 ($\gamma_s^d = 35$; $\gamma_s^p = 12$); no temp cited	Test liquids not known, by geometric mean equation.
Gotoh, 2004[92]	Contact angle	$\gamma_s = 45.3$ mJ/m^2 ($\gamma_s^{LW} = 42.5$, $\gamma_s^{AB} = 2.8$, $\gamma_s^+ = 0.2$, $\gamma_s^- = 9.6$); no temp cited	Test liquids: water, diiodomethane, and ethylene glycol; by sessile drop method; acid-base analysis.
Sewell, 1971[193]	Calculated	$\gamma_s = 46.6$ mJ/m^2; no temp cited	Calculated from parachor and cohesive energy.
Van Krevelen, 1976[85]	Calculated	$\gamma_s = 47$ mJ/m^2; no temp cited	Calculated from parachor parameter.
Wu, 1982[49]	Unknown	$\gamma_s = 47.9$ mJ/m^2; 20°C	Measurement method not cited; PE molded under nitrogen.