

Surface Energy Data for Cellulose acetate, CAS # 9004-35-7

Source ^(a)	Mst. Type ^(b)	Data ^(c)	Comments ^(d)
Hamilton, 1972 ⁽⁷⁴⁾	Critical ST	$\gamma_c = 36 \text{ mJ/m}^2$; no temp cited	Test liquids: water and octane.
Kutsch, 1993 ⁽¹⁰²⁾	Critical ST	$\gamma_c = 39 \text{ mJ/m}^2$; no temp cited	Test liquids not known.
van Oss, 1989 ⁽²²⁾	Contact angle	$\theta_W^Y = 54.5^\circ$; 20°C	
Busscher, 1981 ⁽⁷²⁾	Contact angle	$\gamma_s = 38.2 \text{ mJ/m}^2$ ($\gamma_s^d = 29.7$, $\gamma_s^p = 8.5$); no temp cited	Test liquids: water and propanol.
van Oss, 1989 ⁽²²⁾	Contact angle	$\gamma_s = 43 \text{ mJ/m}^2$ ($\gamma_s^{LW} = 38$, $\gamma_s^{AB} = 5.2$, $\gamma_s^+ = 0.3$, $\gamma_s^- = 22.7$); 20°C	Test liquids: water, alpha-bromonaphthalene, diiodomethane, formamide, and glycerin; acid-base analysis.
Wu, 1989 ⁽²⁷³⁾	Contact angle	$\gamma_s = 45.9 \text{ mJ/m}^2$ ($\gamma_s^d = 32.3$, $\gamma_s^p = 13.6$); 20°C	Test liquids not known.
Good, 1991 ⁽¹³⁵⁾	Contact angle	$\gamma_s = 40.3 \text{ mJ/m}^2$ ($\gamma_s^{LW} = 35$, $\gamma_s^{AB} = 5.3$, $\gamma_s^+ = 0.3$, $\gamma_s^- = 22.7$); no temp cited	Test liquids: water and glycerol; acid-base analysis.
Lee, 1999 ⁽¹¹⁶⁾	Contact angle	$\gamma_s = 38 \text{ mJ/m}^2$ ($\gamma_s^{LW} = 38$, $\gamma_s^{AB} = 0.0$, $\gamma_s^+ = 0.0$, $\gamma_s^- = 25$); 20°C	Test liquids: water, alpha-bromonaphthalene, diiodomethane, formamide, and glycerin; acid-base analysis, based on reference values for water of $\gamma^+ = 34.2 \text{ mJ/m}^2$ and $\gamma^- = 19 \text{ mJ/m}^2$.
^(d) van Oss, 2006 ⁽¹¹⁷⁾	Contact angle	$\gamma_s = 52.6 \text{ mJ/m}^2$ ($\gamma_s^{LW} = 44.9$, $\gamma_s^{AB} = 7.7$, $\gamma_s^+ = 0.8$, $\gamma_s^- = 18.5$); 20°C	Test liquids: water, glycerin, formamide, diiodomethane, and alpha-bromonaphthalene; acid-base analysis of film evaporated on glass from MEK solution.