

Surface Energy Data for PVDC: Poly(vinylidene chloride) (Saran), CAS # 9002-85-1

Source ^(a)	Mst. Type ^(b)	Data ^(c)	Comments ^(d)
Ellison, 1954 ⁽⁸⁾	Critical ST	$\gamma_c = 40 \text{ mJ/m}^2$; 20°C	Various test liquids.
Lee, 1968 ⁽¹³¹⁾	Critical ST	$\gamma_c = 40 \text{ mJ/m}^2$; no temp cited	Test liquids: water, glycerol, formamide, alcohols, and long-chain polyglycols.
Wu, 1971 ⁽²⁹⁾	Contact angle	$\theta_w^Y = 80^\circ$; 20°C	
Wu, 1971 ⁽²⁹⁾	Contact angle	$\gamma_s = 45.0 \text{ mJ/m}^2$ ($\gamma_s^d = 41.9$, $\gamma_s^p = 3.1$); 20°C	Test liquids: water and diiodomethane, by geometric mean equation.
Wu, 1971 ⁽²⁹⁾	Contact angle	$\gamma_s = 45.4 \text{ mJ/m}^2$ ($\gamma_s^d = 36.3$, $\gamma_s^p = 9.1$); 20°C	Test liquids: water and diiodomethane, by harmonic mean equation.
Kitazaki, 1972 ⁽¹⁹¹⁾	Contact angle	$\gamma_s = 45.8 \text{ mJ/m}^2$ ($\gamma_s^d = 43.0$, $\gamma_s^p = 2.8$); no temp cited	Various test liquids; original results split polar component into hydrogen- and non-hydrogen bonding parameters.
Wu, 1979 ⁽⁴⁵⁾	Contact angle	$\gamma_c = 45.2 \text{ mJ/m}^2$; 20°C	Test liquids not known; calculated by the equation of state method.
Morra, 1999 ⁽¹³⁴⁾	Contact angle	$\gamma_s = 40.3 \text{ mJ/m}^2$ ($\gamma_s^{LW} = 40.4$, $\gamma_s^{AB} = -0.1$, $\gamma_s^+ = 0.002$, $\gamma_s^- = 2.6$); no temp cited	Test liquids not known; acid-base analysis based on reference values for water of $\gamma^+ = 48.5 \text{ mJ/m}^2$ and $\gamma^- = 11.2 \text{ mJ/m}^2$.
Kwok, 2000 ⁽¹⁶⁶⁾	Contact angle	$\gamma_c = 35.7 \text{ mJ/m}^2$; no temp cited	Re-calculated by equation of state method from data produced by Ellison, 1954 ⁽⁸⁾ .
Wu, 1971 ⁽²⁹⁾	From polymer melt	$\gamma_s = 45.2 \text{ mJ/m}^2$; 20°C	Direct measurement of polymer melt extrapolated to 20°C.
Wu, 1968 ⁽¹⁸²⁾	Calculated	$\gamma_s = 40 \text{ mJ/m}^2$; 20°C	Calculated from molecular constitution.
Sewell, 1971 ⁽¹⁹³⁾	Calculated	$\gamma_s = 39.6 \text{ mJ/m}^2$; no temp cited	Calculated from parachor and cohesive energy.
Sewell, 1971 ⁽¹⁹³⁾	Calculated	$\gamma_s = 46.6 \text{ mJ/m}^2$; no temp cited	Calculated by least squares from cohesive energy and molar volume.
Surface-tension.de, 2007 ⁽¹¹⁰⁾	Unknown	$\gamma_s = 45.0 \text{ mJ/m}^2$ ($\gamma_s^d = 40.5$, $\gamma_s^p = 4.5$); 20°C	No details available.