Surface Energy Data for PIB: Polyisobutylene (butyl rubber), CAS # 9003-27-4

Source[a]	Mst. Type[b]	Data[c]	Comments[d]
Crocker, 1969[111]	Critical ST	γ_c = 27 mJ/m^2; no temp cited	Test liquids not known.
Shafrin, 1975[297]	Critical ST	γ_c = 27 mJ/m^2; 20°C	Test liquids not known.
Budziak, 1991[235]	Contact angle	θ_W^A = 110.8-113.3°; no temp cited	
van Oss, 1989[22]	Contact angle	γ_s = 25.0 mJ/m^2 (γ_s^{LW} = 25.0, γ_s^{AB} = 0.0, γ_s^+ = 0.0, γ_s^- = 0.0); 20°C	Test liquids water, alpha-bromonaphthalene, diiodomethane, formamide, and glycerin; acid-base analysis.
Roe, 1968[32]	From polymer melt	γ_s = 34.0 mJ/m^2; 20°C	Measurement by pendant drop of polymer melt extrapolated to 20°C. M_n = 2700.
LeGrand, 1969[36]	From polymer melt	γ_s = 35.6 mJ/m^2; 24°C	Measurement by pendant drop of polymer melt extrapolated to 20°C; various molecular weights.
Wu, 1969[28]	From polymer melt	γ_s = 33.6 mJ/m^2; 20°C	Measurement by pendant drop of polymer melt extrapolated to 20°C. M_n = 2700.
[d]Sewell, 1971[193]	Calculated	γ_s = 19.5 mJ/m^2; no temp cited	Calculated from parachor and cohesive energy.
[d]Sewell, 1971[193]	Calculated	γ_s = 20.4 mJ/m^2; no temp cited	Calculated by least squares from cohesive energy and molar volume.
Wu, 1974[47]	Calculated	γ_s = 34.6 mJ/m^2; 20°C	Calculated from free volume theory and molecular weight.
Wu, 1974[47]	Calculated	γ_s = 35.6 mJ/m^2; 20°C	Calculated from free volume theory and molecular weight.
Wu, 1982[18]	Calculated	γ_s = 30.8 mJ/m^2; 20°C	Calculated from cohesive energy density and solubility parameters.
Wu, 1982[18]	Calculated	γ_s = 34.5 mJ/m^2; 20°C	Calculated from liquid homologs. Infinite molecular weight.
Van Ness, 1992[186]	Calculated	γ_s = 35.1 mJ/m^2; 20°C	Calculated molten surface tension value, extrapolated to 20°C.
Surface-tension.de, 2007[110]	Unknown	γ_s = 33.6 mJ/m^2 (γ_s^d = 33.6, γ_s^p = 0.0); 20°C	No details available.