

### Surface Energy Data for Polyimide, CAS # 25038-81-7

Source <sup>(a)</sup>	Mst. Type <sup>(b)</sup>	Data <sup>(c)</sup>	Comments <sup>(d)</sup>
Kogoma, 1987 <sup>(66)</sup> Egitto, 1990 <sup>(65)</sup> Thomas, 1991 <sup>(242)</sup>	Contact angle Contact angle Contact angle	$\theta_W^Y = 73^\circ$ ; no temp cited $\theta_W^Y = 70^\circ$ ; no temp cited $\theta_W^A = 70^\circ$ , $\theta_W^R = 47^\circ$ , $d\theta_W = 23^\circ$ ; no temp cited	Kapton film. PMDA-ODA polyimide.
Matienzo, 1992 <sup>(243)</sup> Matienzo, 1992 <sup>(243)</sup> Matienzo, 1992 <sup>(243)</sup> Inagaki, 1994 <sup>(115)</sup> Lee, 1996 <sup>(244)</sup>	Contact angle Contact angle Contact angle Contact angle Contact angle	$\theta_W^Y = 70^\circ$ ; no temp cited $\theta_W^Y = 70^\circ$ ; no temp cited $\theta_W^Y = 71^\circ$ ; no temp cited $\theta_W^A = 74.7^\circ$ ; 20°C $\theta_W^A = 85^\circ$ , $\theta_W^R = 38^\circ$ , $d\theta_W = 47^\circ$ ; no temp cited	Kapton-H (PMDA-ODA) film. Upilex-S (BPDA-PDA) film. Upilex-R (BPDA-ODA) film. Kapton H film. PMDA-ODA polyimide.
Lee, 1996 <sup>(244)</sup>	Contact angle	$\theta_W^A = 79^\circ$ , $\theta_W^R = 41^\circ$ , $d\theta_W = 38^\circ$ ; no temp cited	BPDA-PDA polyimide.
Lee, 1996 <sup>(244)</sup>	Contact angle	$\theta_W^A = 87^\circ$ , $\theta_W^R = 67^\circ$ , $d\theta_W = 20^\circ$ ; no temp cited	6FDA-ODA (fluorinated) polyimide.
Gotoh, 2000 <sup>(100)</sup>	Contact angle	$\theta_W^A = 76.9^\circ$ , $\theta_W^R = 39.5^\circ$ , $d\theta_W = 37.4^\circ$ ; no temp cited	Measured by sessile drop method; Kapton 100H.
Gotoh, 2004 <sup>(92)</sup>	Contact angle	$\theta_W^A = 76.4^\circ$ ; $\theta_W^R = 38.2^\circ$ , $d\theta_W = 38.2^\circ$ ; no temp cited	Measured by Wilhelmy plate method; Kapton 100H.
Cho, 2005 <sup>(226)</sup> Wu, 1989 <sup>(273)</sup> Inagaki, 1994 <sup>(115)</sup>	Contact angle Contact angle Contact angle	$\theta_W^Y = 75^\circ$ ; no temp cited $\gamma_s = 41.0 \text{ mJ/m}^2$ ( $\gamma_s^d = 26.3$ , $\gamma_s^p = 14.7$ ); $\gamma_s = 37 \text{ mJ/m}^2$ ; 20°C	Measured by sessile drop method. Test liquids not known. Kapton H film. Test liquids: water, diiodomethane, glycerol, formamide, and tricresyl phosphate. Kapton H film.
Gotoh, 2004 <sup>(92)</sup>	Contact angle	$\gamma_s = 44.0 \text{ mJ/m}^2$ ( $\gamma_s^{LW} = 42.5$ , $\gamma_s^{AB} = 1.5$ , $\gamma_s^+ = 0.1$ , $\gamma_s^- = 6.0$ ); no temp cited	Test liquids: water, diiodomethane, and ethylene glycol, by sessile drop method; acid-base analysis. Kapton 100H.
Cho, 2005 <sup>(226)</sup>	Contact angle	$\gamma_s = 53 \text{ mJ/m}^2$ ( $\gamma_s^d = 50$ , $\gamma_s^p = 3$ ); no temp cited	Test liquids: water and formamide.
Vetelino, 1997 <sup>(81)</sup> Vetelino, 1997 <sup>(81)</sup>	Calculated Calculated	$\theta_W^A = 85^\circ$ , $\theta_W^R = 67^\circ$ , $d\theta_W = 18^\circ$ ; no temp cited $\theta_W^A = 75^\circ$ , $\theta_W^R = 46^\circ$ , $d\theta_W = 29^\circ$ ; no temp cited	OCG 285 polyimide; calculated from surface acoustic waves. DuPont 5878 polyimide; calculated from surface acoustic waves.