

Surface Energy Data for Epoxies and epoxy resins

Source ^(a)	Mst. Type ^(b)	Data ^(c)	Comments ^(d)
Wu, 1971 ⁽⁴¹⁾	Critical ST	$\gamma_c = 44 \text{ mJ/m}^2$; 20°C	Test liquids not known. Amine-cured epoxy resin.
George, 1993 ⁽²¹⁵⁾	Critical ST	$\gamma_c = 43\text{-}47 \text{ mJ/m}^2$; no temp cited	Test liquids not known. DGEBA-amine.
Occhiello, 1991 ⁽²⁰²⁾	Contact angle	$\theta_W^Y = 54^\circ$; no temp cited	Epoxy E11 adhesive, cured 1 h at 353K (80°C).
Occhiello, 1991 ⁽²⁰²⁾	Contact angle	$\theta_W^A = 90^\circ$, $\theta_W^R = 18^\circ$, $d\theta_W = 72^\circ$; no temp cited	Epoxy E11 adhesive, cured 1 h at 353K (80°C).
Uner, 2000 ⁽²⁶⁴⁾	Contact angle	$\theta_W^A = 85^\circ$; no temp cited	Test liquids not known. Diglycidyl ether of bisphenol-A with 6% by weight of N-N-diethylaminopropylamine, cured.
Wu, 1989 ⁽²⁷³⁾	Contact angle	$\gamma_s = 46.8 \text{ mJ/m}^2$; 20°C	
Wu, 1989 ⁽²⁷³⁾	Contact angle	$\gamma_s = 39.1 \text{ mJ/m}^2$ ($\gamma_s^d = 32.6$; $\gamma_s^p = 6.5$); 20°C	Test liquids not known. Diglycidyl ether of bisphenol-A with stoichiometric amount of triethylenetetramine, cured.
Berger, 1991 ⁽¹⁴⁵⁾	Contact angle	$\gamma_s = 42.6 \text{ mJ/m}^2$ ($\gamma_s^d = 42.6$; $\gamma_s^p = 0.0$); no temp cited	Various test liquids, by geometric mean equation. Commercial two-part acid-cured epoxy adhesive.
Occhiello, 1991 ⁽²⁰²⁾	Contact angle	$\gamma_s = 51.6 \text{ mJ/m}^2$ ($\gamma_s^d = 32.6$, $\gamma_s^p = 19.0$); no temp cited	Test liquids: water and diiodomethane; epoxy E11 adhesive, cured 1 h at 353K (80°C).
Comyn, 2006 ⁽²⁷⁹⁾	Contact angle	$\gamma_s = 45.5 \text{ mJ/m}^2$ ($\gamma_s^d = 37.2$; $\gamma_s^p = 8.3$); no temp cited	Test liquids not known. Rubber modified epoxide surface.
Comyn, 2006 ⁽²⁷⁹⁾	Contact angle	$\gamma_s = 46.2 \text{ mJ/m}^2$ ($\gamma_s^d = 41.2$; $\gamma_s^p = 5.0$); no temp cited	Test liquids not known. Amine cured epoxide surface.