

Surface Energy Data for TPO: Thermoplastic polyolefins

Source ^(a)	Mst. Type ^(b)	Data ^(c)	Comments ^(d)
Nihlstrand, 1998 ⁽¹⁵⁴⁾	Contact angle	$\theta_W^A = 104^\circ$, $\theta_W^R = 84^\circ$, $d\theta_W = 20^\circ$; no temp cited	Injection molded TPO including unspecified stabilizers at normal commercial loading (material A).
Nihlstrand, 1998 ⁽¹⁵⁴⁾	Contact angle	$\theta_W^A = 99^\circ$, $\theta_W^R = 74^\circ$, $d\theta_W = 25^\circ$; no temp cited	Injection molded TPO including unspecified stabilizers at normal commercial loading (material B).
Berger, 1991 ⁽¹⁴⁵⁾	Contact angle	$\gamma_s = 31.8 \text{ mJ/m}^2$ ($\gamma_s^d = 31.3$; $\gamma_s^p = 0.5$); no temp cited	Various test liquids, by geometric mean equation. Paint grade TPO surface cleaned with acetone.
Berger, 1991 ⁽¹⁴⁵⁾	Contact angle	$\gamma_s = 30.2 \text{ mJ/m}^2$ ($\gamma_s^d = 30.2$; $\gamma_s^p = 0.0$); no temp cited	Various test liquids, by geometric mean equation. Paint grade TPO surface cleaned with dichloromethane.
Berger, 1991 ⁽¹⁴⁵⁾	Contact angle	$\gamma_s = 29.3 \text{ mJ/m}^2$ ($\gamma_s^d = 29.0$; $\gamma_s^p = 0.3$); no temp cited	Various test liquids, by geometric mean equation. Paint grade TPO surface cleaned with detergent.
Berger, 1991 ⁽¹⁴⁵⁾	Contact angle	$\gamma_s = 27.3 \text{ mJ/m}^2$ ($\gamma_s^d = 26.5$; $\gamma_s^p = 0.8$); no temp cited	Various test liquids, by geometric mean equation. Paint grade TPO surface cleaned with acetone.
Berger, 1991 ⁽¹⁴⁵⁾	Contact angle	$\gamma_s = 29.3 \text{ mJ/m}^2$ ($\gamma_s^d = 29.3$; $\gamma_s^p = 0.0$); no temp cited	Various test liquids, by geometric mean equation. Paint grade TPO surface cleaned with dichloromethane.
Berger, 1991 ⁽¹⁴⁵⁾	Contact angle	$\gamma_s = 25.8 \text{ mJ/m}^2$ ($\gamma_s^d = 24.9$; $\gamma_s^p = 0.9$); no temp cited	Various test liquids, by geometric mean equation. Paint grade TPO surface cleaned with detergent.
Berta, 2003 ⁽²⁶²⁾	Contact angle	$\gamma_s = 29.8 \text{ mJ/m}^2$ ($\gamma_s^d = 27.6$; $\gamma_s^p = 2.2$); no temp cited	Test liquids not known.
Schoff, 2003 ⁽²⁶³⁾	Contact angle	$\gamma_s = 35 \text{ mJ/m}^2$ ($\gamma_s^d = 23$; $\gamma_s^p = 12$); no temp cited	Test liquids not known, by geometric mean equation. Bailey 3183 TPO.
Schoff, 2003 ⁽²⁶³⁾	Contact angle	$\gamma_s = 33 \text{ mJ/m}^2$ ($\gamma_s^d = 31$; $\gamma_s^p = 2$); no temp cited	Test liquids not known, by geometric mean equation. Himont 3041C TPO.
Schoff, 2003 ⁽²⁶³⁾	Contact angle	$\gamma_s = 30 \text{ mJ/m}^2$ ($\gamma_s^d = 29$; $\gamma_s^p = 1$); no temp cited	Test liquids not known, by geometric mean equation. Himont 3131 TPO.
Schoff, 2003 ⁽²⁶³⁾	Contact angle	$\gamma_s = 38 \text{ mJ/m}^2$ ($\gamma_s^d = 32$; $\gamma_s^p = 6$); no temp cited	Test liquids not known, by geometric mean equation. Himont 3183 TPO.