Supporting Information

Vanillin-derived amines for bio-based thermosets

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I. Characterization data

a. Dihydroxyaminopropane of bisphenol A (4)

Described in the literature:

IR (neat, ν, cm⁻¹): 3371–3042, 2969–2925, 2866, 1604, 1582, 1508, 1240, 1029, 830.

¹H NMR (400 MHz, CD₃OD, ppm) δ: 7.13 and 6.85 (d, 8H, H₉,); 4.07–3.92 (m, 6H, 2xO-C₆H₄, 2xCH); 2.89–2.72 (m, 4H, 2xN-CH₃), 1.62 (s, 6H, 2xCH₃).

ESMS (in MeOH, positive ions): m/z ≈ 375.2 ([M + H]⁺, calculated: 375.23). MS/MS: m/z ≈ 375.2, 357.2, 302.1, 208.0, 135.0.

Recorded during this study:

¹³C NMR (101 MHz, MeOD) and DEPT 135
b. Dihydroxyaminopropane of methoxyhydroquinone (5)

$^1$H NMR (400 MHz, MeOD)

$^1$C NMR (101 MHz, MeOD) and DEPT 135
c. Dihydroxyaminopropane of vanillyl alcohol (6)

$^1$H NMR (400 MHz, MeOD)
$^{13}$C NMR (101 MHz, MeOD) and DEPT 135

FTIR
d. $T_g$ measurements of DHAMHY and DHAVA

d. [Graph showing weight loss vs. temperature for DHAMHY and DHAVA materials.]

e. Various $T_g$ measurements of the DHAVA/DGEBA materials

e. [Graph showing DSC vs. temperature for various compositions of DHAVA/DGEBA materials.]

f. Various $T_g$ measurements of the DHAVA/DGEBA materials

f. [Graph showing DSC vs. temperature for various compositions of DHAVA/DGEBA materials.]
g. $T_g$ of the DHAVA materials as a function of the epoxy/amine ratio used