

13.8 2.3 - 2.39 = 14.34

Lead-Acid Batteries

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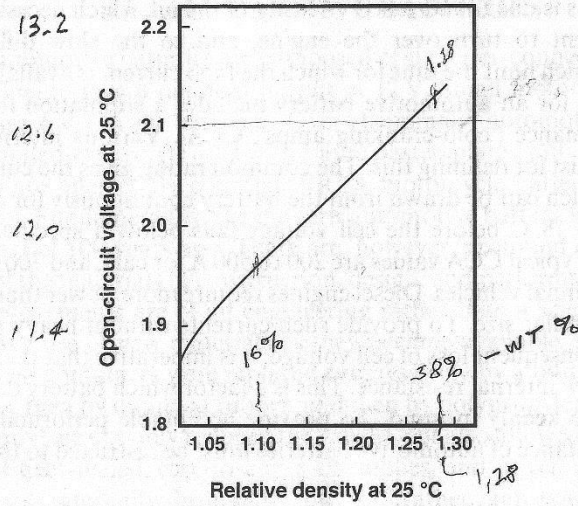


Figure 8.1 Dependence of open-circuit voltage of lead-acid cell on relative density of electrolyte at 25°C

UNDERSTANDING BATTERIES

the acid varies significantly with both concentration and temperature. At 20°C, the specific conductance is 0.7 and 0.6 S cm⁻¹ for 40 wt.% (charged) and 16 wt.% (discharged) acid, respectively. At 40°C, the specific conductance exhibits a maximum of 1.0 S cm⁻¹ at 30 to 35 wt.% acid.

A consequence of the electrode reactions is that the pores of the positive electrode tend to be denuded of acid during discharge, to be

Battery LA voltage v density

