R value and heat capacity for NRG 12” block

NRG 12" block R-value 13.88
Based on:
2.5 inches of EPS @R-4.4/ inch, (R-11)
R- 2.2 for a mid-range 125 pcf block

http://ncma-br.org/pdfs/66/TEK%2006-02C1.pdf

R-11 + R- 2.2 = R-13.2

R- 0.68 interior air barrier R-value (NCMA thermal catalog 2nd edition)

R-value 13.2 + R-.68 = R-13.88.

Heat capacity of NRG 12” block

66 lbs per 128 sq in X 1.12 73lbs per sq ft x.21 (specific heat of concrete)

HC = wall weight (lb/ft 2) x specific heat (Btu/lb ºF)

HC = 73 lbs/ft2 x 0.21 Btu/lb · ºF

HC = 16.06 Btu/ft2