Concrete carbonation rate results of the concrete mixtures

Indoor exposure carbonation rate plots

Figure 1 Carbonation depth Vs. Square root of exposure period

Figure 2 Carbonation depth Vs. Square root of exposure period
Figure 3 Carbonation depth Vs. Square root of exposure period

Figure 4 Carbonation depth Vs. Square root of exposure period
Figure 5 Carbonation depth Vs. Square root of exposure period

Figure 6 Carbonation depth Vs. Square root of exposure period
Figure 7 Carbonation depth Vs. Square root of exposure period

Figure 8 Carbonation depth Vs. Square root of exposure period
Figure 9 Carbonation depth Vs. Square root of exposure period

Figure 10 Carbonation depth Vs. Square root of exposure period
Figure 11 Carbonation depth Vs. Square root of exposure period

Figure 12 Carbonation depth Vs. Square root of exposure period
Figure 13 Carbonation depth Vs. Square root of exposure period

Indoor, 28 days

y = 3.7634x - 0.1565  
$R^2 = 0.9891$

y = 5.5872x - 0.305  
$R^2 = 0.9546$

y = 6.5604x - 0.1419  
$R^2 = 0.9915$

y = 9.9916x + 0.2072  
$R^2 = 0.9953$

Figure 14 Carbonation depth Vs. Square root of exposure period

Indoor, 28 days

y = 1.5386x - 0.4032  
$R^2 = 0.741$

y = 2.2332x - 0.4606  
$R^2 = 0.8266$

y = 3.1896x - 0.5831  
$R^2 = 0.8438$

y = 4.3372x - 0.63  
$R^2 = 0.9064$
Figure 15 Carbonation depth Vs. Square root of exposure period

**Outdoor sheltered exposure carbonation rate plots**

Figure 16 Carbonation depth Vs. Square root of exposure period
Figure 17 Carbonation depth Vs. Square root of exposure period

Figure 18 Carbonation depth Vs. Square root of exposure period
Figure 19 Carbonation depth Vs. Square root of exposure period

Figure 20 Carbonation depth Vs. Square root of exposure period
Figure 21 Carbonation depth Vs. Square root of exposure period

\[ y = 2.2869x - 0.0867 \quad R^2 = 0.9883 \]

\[ y = 3.6023x + 0.022 \quad R^2 = 0.9962 \]

\[ y = 5.6493x - 0.3384 \quad R^2 = 0.9728 \]

\[ y = 7.1242x - 0.2668 \quad R^2 = 0.9813 \]

Figure 22 Carbonation depth Vs. Square root of exposure period

\[ y = 5.0537x - 0.5262 \quad R^2 = 0.9129 \]

\[ y = 7.8289x - 0.0728 \quad R^2 = 0.9957 \]

\[ y = 9.2097x - 0.1804 \quad R^2 = 0.989 \]

\[ y = 14.878x - 0.3747 \quad R^2 = 0.994 \]
Figure 23 Carbonation depth Vs. Square root of exposure period

Figure 24 Carbonation depth Vs. Square root of exposure period
Figure 25 Carbonation depth Vs. Square root of exposure period

Figure 26 Carbonation depth Vs. Square root of exposure period
Figure 27 Carbonation depth Vs. Square root of exposure period

Figure 28 Carbonation depth Vs. Square root of exposure period
Figure 29 Carbonation depth Vs. Square root of exposure period

Figure 30 Carbonation depth Vs. Square root of exposure period
Outdoor exposed exposure carbonation rate plots

Figure 31 Carbonation depth Vs. Square root of exposure period

Figure 32 Carbonation depth Vs. Square root of exposure period
Figure 33 Carbonation depth Vs. Square root of exposure period

Figure 34 Carbonation depth Vs. Square root of exposure period
Figure 35 Carbonation depth Vs. Square root of exposure period

Figure 36 Carbonation depth Vs. Square root of exposure period
Figure 37 Carbonation depth Vs. Square root of exposure period

Figure 38 Carbonation depth Vs. Square root of exposure period
Figure 39 Carbonation depth Vs. Square root of exposure period

Figure 40 Carbonation depth Vs. Square root of exposure period
Figure 41 Carbonation depth Vs. Square root of exposure period

Figure 42 Carbonation depth Vs. Square root of exposure period
Figure 43 Carbonation depth Vs. Square root of exposure period

Figure 44 Carbonation depth Vs. Square root of exposure period
Figure 45 Carbonation depth Vs. Square root of exposure period