Minimal working application example

 ${\rm Jakob~Harden^{\dagger}}$ ${\rm ^{\dagger}Graz~University~of~Technology~(Graz,~Austria)}$

August 26^{th} , 2023

Abstract

This document contains an application example that clearly shows the use of exported data in \LaTeX documents. In particular, how to use and print metadata, ultrasonic signal data and temperature measurements.

The dataset used in this example is included in Test series 1[1]. The code of the dataset is $ts1_wc040_d50_6$. The ambient temperature before the start of the ultrasonic pulse transmission test was: 19.7 C

Ultrasonic signal data: The following graph shows the signal response of a compression wave and a shear wave at a maturity of 24 hours.

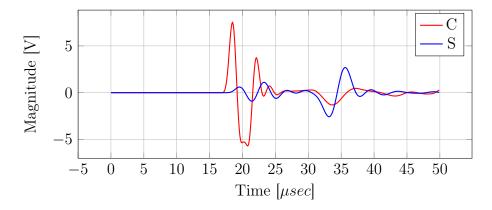


Figure 1: Compression (C) and shear (S) wave at a specimen maturity of 24 hours.

Specimen temperature data: The following graph shows the evolution of the specimen temperature within the first 24 hours of the hydration process.

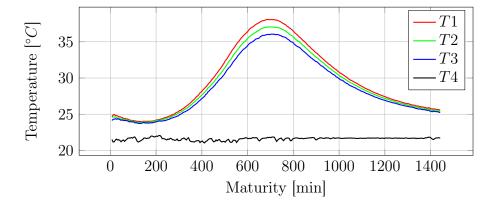


Figure 2: Specimen temperatures and ambient temperature. Legend: $T1 \dots$ channel 1 (specimen); $T2 \dots$ channel 2 (specimen); $T3 \dots$ channel 3 (specimen); $T4 \dots$ channel 4 (ambient air)

References

[1] Jakob Harden. "Ultrasonic Pulse Transmission Tests: Datasets - Test Series 1, Cement Paste at Early Stages". In: TU GRAZ Repository, Bibliothek und Archiv (2023). DOI: 10.3217/bhs4g-m3z76. URL: https://doi.org/10.3217/bhs4g-m3z76.