SUPPLEMENTARY MATERIAL TO

Pellets/block bentonite barriers: laboratory study of their evolution upon hydration

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Fig. SM 1. Bentonite granulate before compaction (left), compacted block (centre) and pellets (right)

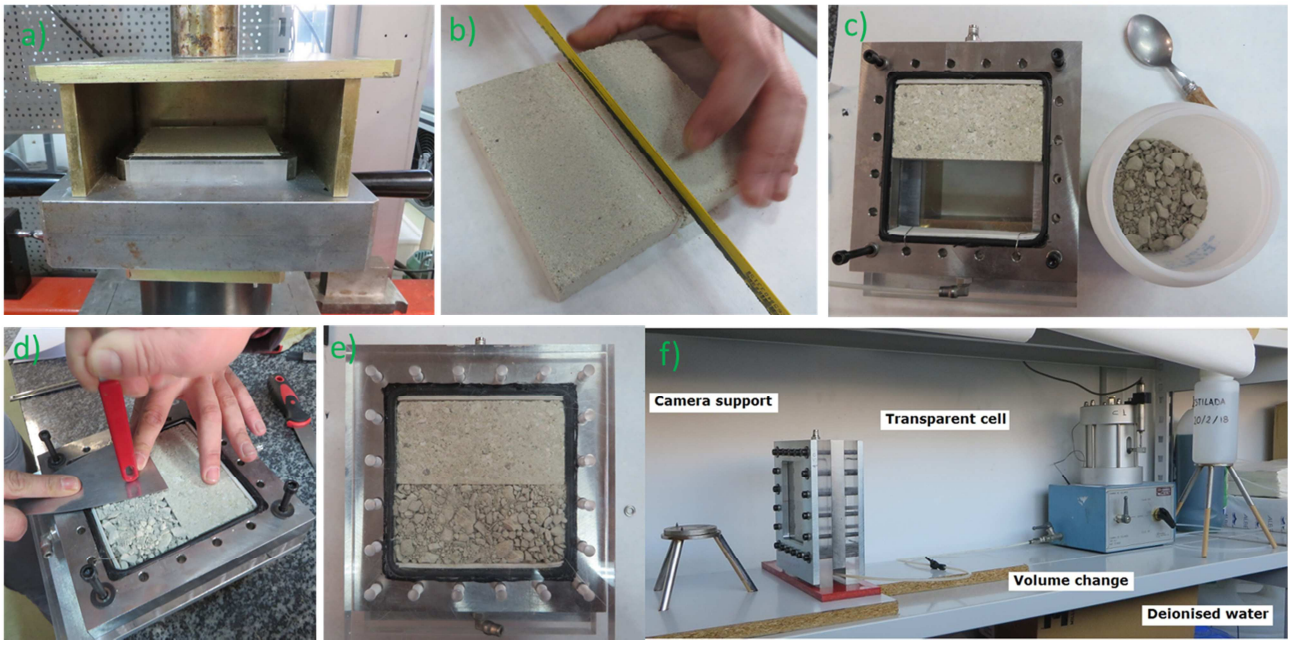


Fig. SM 2. Procedure for transparent cell assemblage: a) compaction of a square bentonite block of dry density 1.6 g/cm^3; b) half sectioning of the block; c) block filling half of the cell and pellets to be poured in the other half with a spoon; d) filling of the other half of the cell with pellets (see Fig. SM 3 for appearance of up and down faces); e) face A with methacrylate cover on before screwing it on the steel frame; f) whole experimental setup



Fig. SM 3. Appearance of A faces (left) and B (right) of test CW1

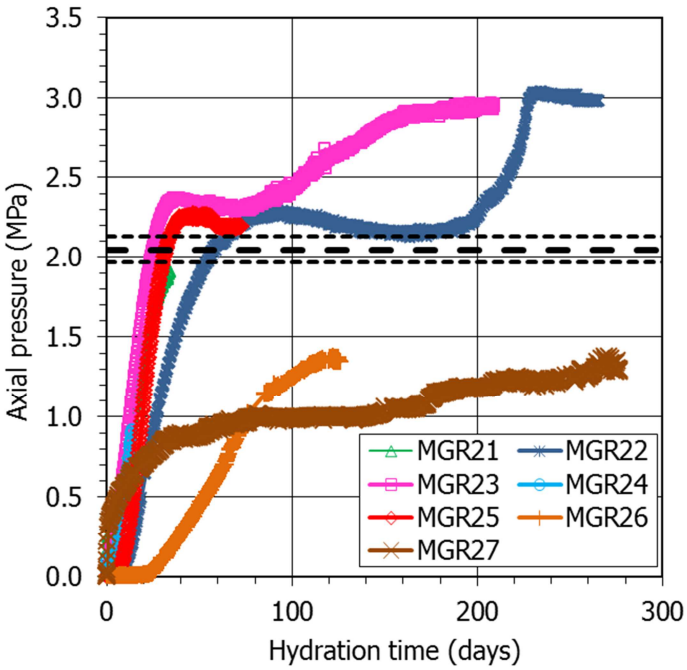


Fig. SM 4. Axial pressure evolution over time in the large-scale oedometer tests (constant flow was prescribed in tests MGR22 and MGR26). The thick horizontal lines indicate the expected swelling pressure according to Eq. 2 (average and standard deviation)

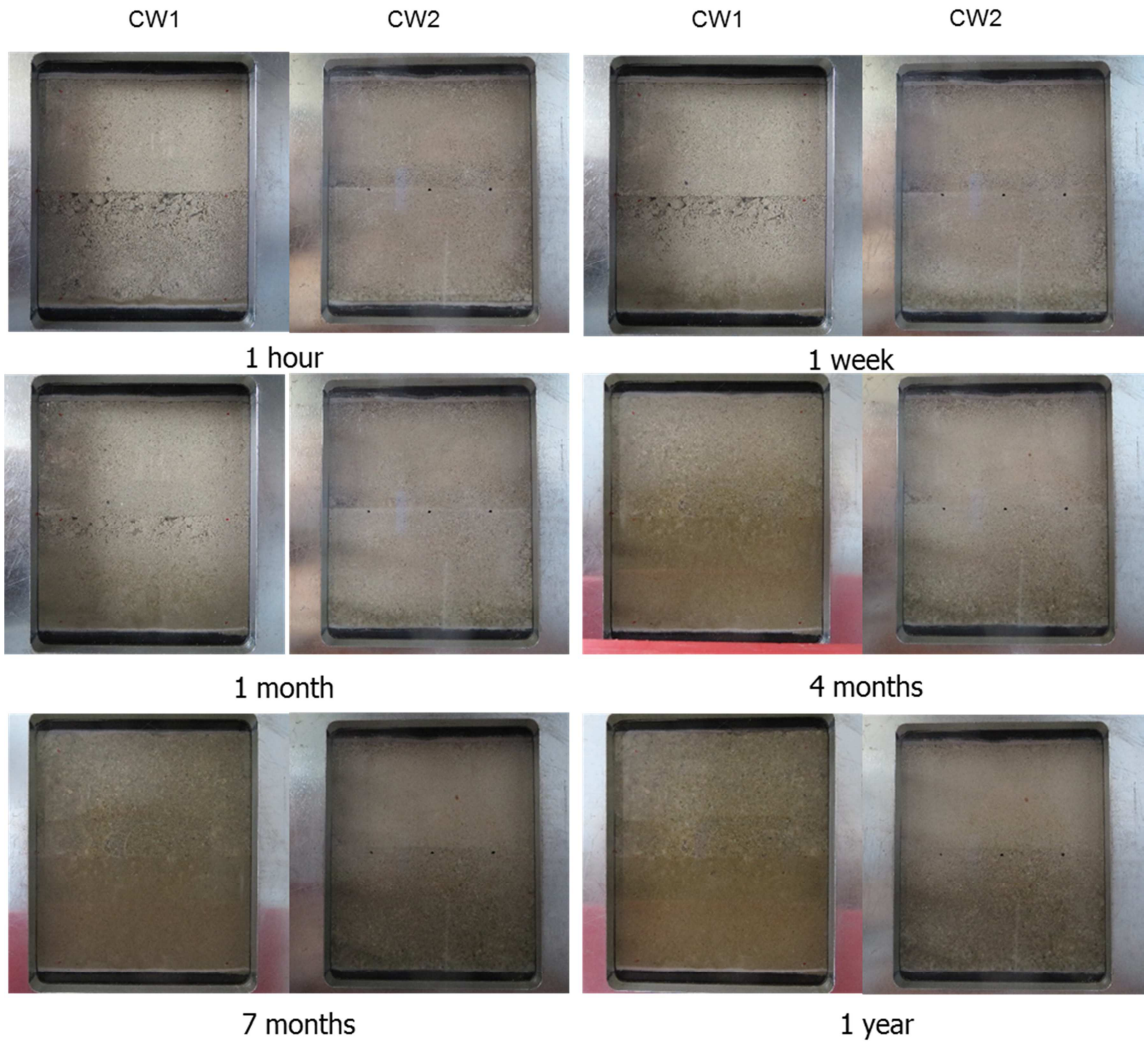


Fig. SM 5. Comparison, in face B, of the evolution of the hydration fronts in both cells (CW1: first and third column, and CW2: second and fourth column) for six different moments

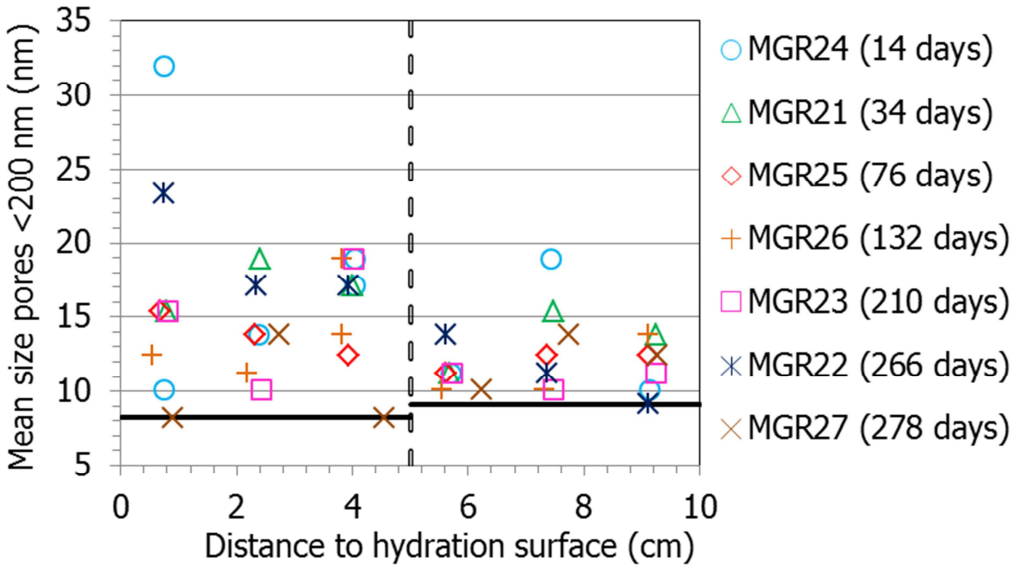


Fig. SM 6. Mean size of pores smaller than 200 nm as determined by MIP (except in test MGR27, the pellets samples were at 0-5 cm from the hydration surface, and the block samples were at 5-10 cm from the hydration surface)