

CODE 233**COMPARATIVE STUDY OF COMMERCIAL AVAILABLE GROUT AND
LABORATORY FORMULATION FOR STRENGTHENING AND
CONSOLIDATION OF ANCIENT MASONRY****Luso, Eduarda¹**

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ABSTRACT

The grouts injection is one of the possible techniques for structural consolidation works of stone masonry walls. However, besides the reversibility, one of their biggest problems is precisely the choice of mortar or grout to use. Due to easy preparation, the commercially available grouts (pre-dosed products that you need only add water) are preferred over the grouts dosed and prepared "in-situ" because they requiring less labour and less equipment for its elaboration. However, the use of commercial grout has some disadvantages, mainly from an economic point of view besides presenting in the respective datasheets limited information which makes the direct comparison between materials more difficult. This work aims to demonstrate that compositions with proper proportions of metakaolin, cement and hydrated lime, plasticizer and water, may have very similar features or even higher than some of the commercial products available in the market. This study aims to compare the rheological properties, physical (texture and colour) and mechanical of one of the commercial grouts with one composition made in the laboratory as well as an economic study, demonstrating that these materials constitute a possible alternative to existing commercial grouts on the market.